OUR VIRGINIA

E. Ehrlich Smith

STATES PUBLISHING COMPANY
RICHMOND, VIRGINIA

Wyllian Foster

OUR VIRGINIA

A DESCRIPTION OF VIRGINIA FOR YOUNG PEOPLE

BY

E. EHRLICH SMITH

AUTHOR OF

"TEACHING GEOGRAPHY BY PROBLEMS" AND "THE HEART OF THE CURRICULUM."

DRAWINGS BY

FREDERIC H. SPIGEL

STATES PUBLISHING COMPANY

RICHMOND, VIRGINIA

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PREFACE

To the Boys and Girls
of Virginia:

Before you read this book, you should ask yourself the question, What do I know about my own state? There are many people who know very little about their state. The reason is that they have never taken the trouble to find out about it.

Virginia is worth knowing. It is a grand place in which to live. There are more than two millions of us here; and there are more than a half million boys and girls who go to school. What you will read about in this book will tell you how we work and how we play; what things we do and why we do them.

Almost everybody in our state is American-born and American-bred. The early colonists of Virginia were the first Americans.

This book is not a history of what has happened in Virginia, but it is a story of and pictures about what we are now doing. For the pictures in this book thanks are due Hon. Geo. W. Koiner, Commissioner of Agriculture; Colonel C. P. Hasbrook, General Manager of the Richmond "Times-Dispatch;" Mr. T. Gilbert Wood, Industrial Agent of the Norfolk and Western Railway Company; Mr. K. T. Crawley, Manager of the Agricultural and Industrial Department of the Chesapeake and Ohio Railway Company; and Mr. W. P. Muller, Richmond Manager of the L. C. Smith Typewriter Company.

Before this book was printed, many boys and girls read the stories after they had been typewritten . Thanks are due these children, for, by doing this, they helped me to write better stories.

You may want to learn much more about Virginia than this little book will tell you. When you get to the place in the book where you want to know more than it tells you, ask somebody—mother, father, or teacher. You can also get much information about our state by writing to Hon. George W. Koiner, Commissioner of Agriculture, and asking him to send you the "Handbook of Virginia" and the "Yearbook." The "Handbook" is illustrated, and tells you a great deal that all of us should know. You can get information about any city by writing to the Chamber of Commerce of that city; the "Handbook" gives you information about the counties. The railroads, also, will be glad to help you, if you write to them. There are several departments of the state which get out bulletins which will interest you. These are the Department of Game and Inland Fisheries, the Department of Health, and the State Library, which also furnishes books. You may also get valuable information from the Co-operative Education Association of Virginia. The address of this department is Richmond. In "The World Almanac" and in boys' and girls' encyclopedias there are facts about our state. Wayland's History of Virginia should be studied by all the boys and girls in our state.

The Highway Commission gets out "road maps" of the highway system, and the "Handbook" contains a map of our state. You can buy a blackboard stencil map from the Educational Publishing Company, 18 East 17th St., New York City. Maps are also printed in this book to help you when you read.

E. EHRLICH SMITH

Richmond, Virginia,

May 25, 1923.

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The Landing at Jamestown
As We Come Into Our Virginia From The Sea
Hampton Roads And Up The James

OUR VIRGINIA

CHAPTER I.

WHY WE TRADE

Early Life in Virginia

When Captain John Smith and his men came to Jamestown Island, they found it to be the home of the Indians. No one knows how long the Indians had been living there. Captain John Smith's party found the Red Men living in wigwams made of long poles and covered with skins of animals. These wigwams were easily taken down and moved. This was done every season of the year.

Indians did not need nearly so many things as did the English. They wore moccasins instead of shoes. From the skins of wild animals they made clothes. They made coarse blankets with the hair of wild animals.

In winter the Indians moved into sheltered places in the forests. In the spring they chose fields where corn could be planted. In the fall they went to their hunting grounds.

The men spent their time in hunting, fishing, and fighting. The women stayed in the villages where they worked. They planted corn, harvested it, and ground it into meal. They dressed the skins of the animals which the men had killed. They also gathered oysters.

Indian boys did not have to do any work, nor did they go to school. They had never seen a book. They learned lessons from their fathers about many things. They learned to know where to look for birds and animals, and how to shoot them. When the Indian boy was twelve years old he learned to build a canoe out of tree bark, and to paddle swiftly and silently up and down the streams.

Indian girls were taught by their mothers to cut and carry wood, to plant corn and tobacco, to cook and sew, and to keep the wigwam in order. This last was not hard to do because the floor was nothing but dirt, and it was never swept. The beds were made of animal skins, spread over the ground. The dishes were either wooden or earthen jars.

The children had to gather wild strawberries and other fruits. Indian babies had few toys. They had rattles and strings of colored shells. The boys made their own toys with stones and sticks. They liked best to play with bows and arrows. They played that they were fighting, hunting, and fishing.

When the white men came to Virginia, they had never seen any tobacco or corn. But the Indians taught them to use both. The white men knew many things the Indians had never dreamed of. They had been used to fine clothes made of wool, cotton, and silk. They wore shoes which were made of leather. They wore hats which were made of felt. They were used to living in houses made of planks and bricks. The white men brought guns with them. The Indians used only bows and arrows. The settlers also made beautiful trinkets out of gold, silver and iron.

When the white men first came, there were no houses, no churches, no schools, and no stores. Each man had to build his own home, make a part of his furniture, raise his crops, hunt, and fish.

The first houses were built of logs. The cracks were filled with mud, and the windows were made with oiled paper. The floors were covered with clean, dry sand. There were no stoves. Large fireplaces took up one side of the room. All the cooking was done over the coals in the fireplace. They made their own candles and these gave all the light they had. Sheep furnished wool for cloth, and for the yarn which was knit into stockings.

The first schools were kept in log cabins. While the women

A log cabin school.

cooked and sewed, they taught the children. There were only a few books and no magazines or papers like you enjoy.

The children had little time for playing games, and they had very few toys. The girls had rude dolls of wood and rags. The boys made their own kites, tops, balls, marbles, pop-guns, willow whistles, bows and arrows, slings, and traps.

The Indians stored up corn for the winter, and some of this the white men bought for knives, bits of cloth, and other things. Indians did not want very much, —only guns, powder, whiskey, and trinkets. The white men wanted the Indians' tobacco and the land on which they hunted and fished. The Indians did not know how to make furniture, carpets, silverware, wagons, and other things. That is why the white men did not trade much with them.

The white men were not happy to live like this, so they kept sending back to England for many things. They sold cotton and tobacco to England and bought furniture, iron ploughs, clothes, and other things. Many years later they were able to build nice homes and to buy furniture, tools, dishes, silverware and weapons. Some of the old Virginia homes were very beautiful, and a few are standing today. Each large home was the center of a plantation. On the plantation were raised the vegetables, fruits, grain, hogs, sheep, and cattle that were needed. What they did not need they shipped to England and traded

These boys and girls belong to a Pig Club in Pulaski County. They contest for prizes by raising pigs.

for things that they did need.

Life To-day in Virginia

To-day, Virginia boys and girls learn to raise corn and pigs and to be helpful on farms. Boys in cities and towns have the chance to belong to the Boy Scouts. They all go to school, where they learn many useful things. Indian boys did not go to school, nor did they help on the farms. They were taught to fight. Boy Scouts are taught to help others.

Virginia girls do many noble things. They learn to can, preserve, and to help keep their homes clean and beautiful. Indian girls were not taught to do this. Girls in cities can belong to the Girl Scouts where they learn to be healthy and helpful. They all go to school, where they have just as good a chance as do boys. Indian girls did not go to school.

Display at Virginia State Fair of canning which was done by Girls' Canning Clubs.

Two Virginia boys who are winners of more prizes for growing corn than any other two boys in the United States.

You boys and girls enjoy many things which Indian boys and girls never dreamed of. To-day boys have fine toys. They have baseballs, footballs, bicycles, tops, kites, and marbles which are all made in factories. Girls have beautiful dolls, doll carriages, bicycles, and other playthings. These too, are made in factories, and they are bought from stores with the money which your fathers earn. The toys and playthings which you have were not made in Virginia factories. They were made in other places. Your fathers were able to buy these toys for you because of the money which was paid for the things which are

raised on our farms and made in our factories. Your fathers wanted the toys for you, and the people who made the toys wanted something in place of them. This is what makes people trade.

With the money which we now get by trading we build schools and other public buildings, we buy pianos and violins and learn to know good music, we get good doctors, we get engineers to lay out parks, to build roads, streets, and cities. In these and in many other ways we are learning to live nobler and better lives.

Chief Cook of the Pamunkey Indians, who live near West Point, Va. They are said to be great-grandsons and great-granddaughters of Powhatan's tribe of Indians.

In this picture, Chief Cook is appealing to the Great Spirit.

CHAPTER II.

SOME FRIENDS THAT HELP US

Two Things to Do

Get three tin cans and make one hole with a large nail in the bottom of each. Fill one can half full of sand, one, half full of clay, and the other, half full of sand and clay mixed in equal parts. Then put each can over a tumbler. Now pour a tumbler full of water into each can. Watch the water as it comes through the holes in the cans. Which kind of soil holds the water best?

Take a fruit jar and fill it half full of water. Put in equal parts of sand, gravel, clay, and loam (sand and clay). Replace the cover of the jar and shake well. Set the jar aside. On the next day see what has happened.

Soil

Rocks are ground into pebbles, sand, and clay by water and wind. It takes a long time for water and wind to grind rocks together and make soil out of them. But after many years

This is to show you what the ground would look like if we could see it in this way.

they do it. All the time this is going on, leaves and limbs of trees, dead trees, salt, limestone, and other things are all brought together by water. These mix with the pebbles, sand, and clay. Brooks, streams, and rivers carry soil down into the valleys and make them rich.

Plants

Do you like vegetables? They are good for you. Some of the vegetables which we eat are dug out of the ground. Potatoes, turnips, beets, onions, and rad-

The James River Valley

ishes bury themselves in the ground. While they grow, they take in water through their skins. If the ground is too hard, it will squeeze them to death. These vegetables need sandy ground in which to grow. Sandy ground is not hard like clay. They will not grow in clay ground. When the ground is sand and clay mixed, these vegetables like it. In sand they can spread out as they grow. Clay holds water for them. Sand does not hold water as well as does clay. If plants are to grow, they must be planted in the kind of soil which they like.

Cabbage, spinach, cauliflower, and lettuce send small roots down into the ground, but the most of these plants—the leaves—grow above the ground. That is the part we eat. The food

these plants get from the ground is taken in through the roots and sent up into the leaves. These roots are so tender that they, too, need sandy soil to push through to get water and food. The leaves of these vegetables spread out to get water and sunshine. The water, the green of the plants, sunshine, and air are all playmates.

Peanuts, squash, beans, peas, melons, tomatoes, and cucumbers grow on vines. They have roots, too. But just see how much of these plants grows above the ground and how little below the ground.

Peanut vines gathered and stacked around poles. Notice how sandy the soil is on which they once grew.

The leaves and stems of all these plants are so tender that frost, cold weather, and very hot, dry weather kill them.

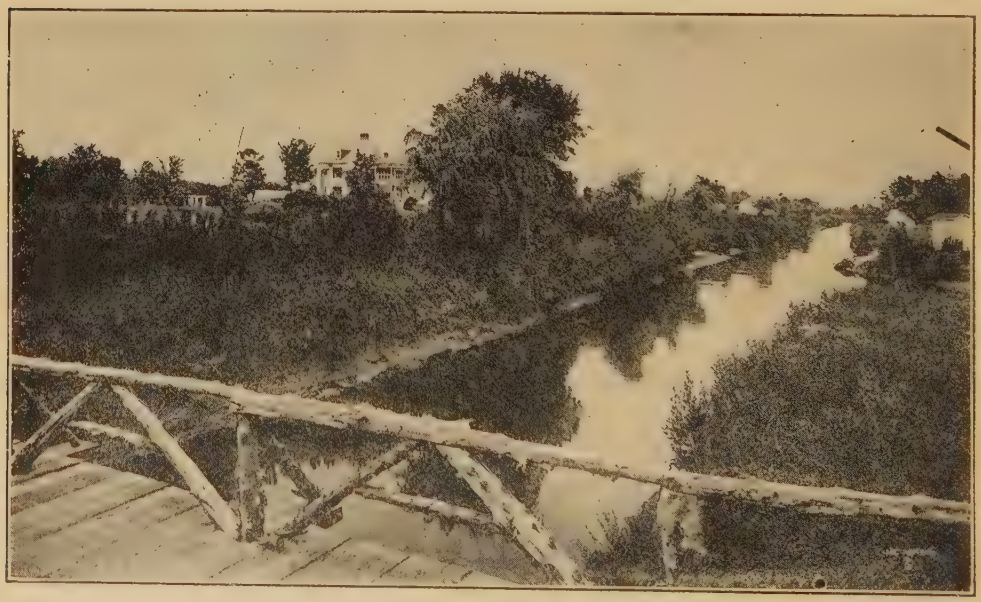
Corn is a very strong plant. It has many roots. When corn roots look for water they are strong enough to break through clay, and even to push aside small rocks. For this reason, corn can grow on rocky soil or on clay soil. The stalk and leaves are thick and tough, and they can stand cold weather.

Wheat, oats, rye, and barley are also very tough. Although much smaller plants than corn, they have roots which are just as strong and stalks which can stand even more cold than corn. One kind of wheat which is very hardy, grows in the winter. This is called "winter wheat." Much of this grows in the Valley of Virginia. Flour, made from winter wheat, makes mighty good biscuits. Some say winter wheat biscuits are better than those made from spring wheat.

Every plant needs the kind of soil it likes best to live in. Some plants need sandy soil, some clay, some sand and clay, and others even rocky soil. Some

plants are tougher than others. Plants which can not stand cold weather, frost, snow, sleet, and storms grow in Tidewater Virginia. Here they find warm, damp air, rain, and sunshine, with only a few storms now and then to bother them. They also enjoy the sandy soil there. Plants which are tougher, which need colder weather, and which grow in rocky and clay soil are not found in Tidewater Virginia.

The soil and the plants are friends that help us in Virginia. Without the things they give us we could not carry on trade, for it is from our farms that we get most of the materials for our factories and for our trade. Enough money is made in a year from our farms alone for every man, woman, and child in our state to receive one hundred twenty five dollars. That is why the soil and plants are our friends.



A home on a Tidewater farm.

CHAPTER III.

TIDEWATER VIRGINIA

Bays and Rivers

The Chesapeake Bay is a large body of salt water. The James, York, Rappahannock, and Potomac rivers flow into this bay. Our rivers get wide just before they empty into the Chesapeake Bay. If you go in a small boat along the shores of the Chesapeake Bay, you will pass the places where these rivers flow into it. But the water is so wide that sometimes you do not know you are in the "mouth" of a river.

Besides these mouths of rivers, you will also sail into many small bays and inlets. As you sail along the water, you will not see a straight coastline, but you will wind in and out of river mouths, bays, and inlets.

Tides

Sometimes you can feel your little boat being swept along by a strong current of water. Sometimes this current is running out of the bay into the ocean. About six hours later this current will be running in the other direction. It will be coming from the ocean back into the bay and up the mouths of the rivers. When the water rushes in and out in this way, we say that the tide is running. These tides run the water in and out far up in the rivers, in the small bays, in the inlets, and even in the Chesapeake Bay itself. When the water runs out to the ocean for six hours, the water is lower by about three feet than it was before it ran out. All the land about the water which has these tides is a section of Virginia known as Tidewater Virginia.

Oystering

During the months which have an "r" in their spelling, many small boats are out getting oysters. Thousands of these little boats go just off shore in the little bays, inlets, and river mouths to the oyster beds. Men

This man is tonging oysters.

use oyster tongs which are let down to the bottom in shallow water. Oysters are brought up in the tongs.

After the boats have been filled, the oysters are taken ashore. Then the shells are taken off, and the oysters are packed with ice to keep them from spoiling. Then they are again put in boats and on trains which haul them to cities. To nearby places they are shipped in their shells.

Last year there were enough oysters shipped from the Chesapeake Bay to sell two quarts to every man, woman, and child in our state. The Chesapeake Bay furnishes as many oysters as do all other places on the coasts of the United States.

The Oyster

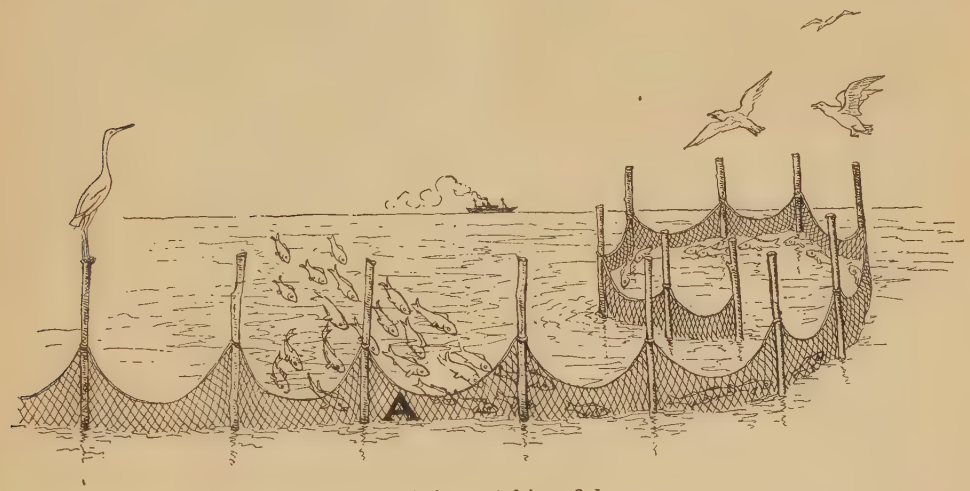
When the oyster is a tiny animal, its flabby little body floats about on top of the water like a piece of jelly. As it grows older, a shell begins to grow on its body. It is not long before the oyster and shell together are so heavy that they sink to the bottom. When this happens, the oyster is very happy. It fastens itself to a rock or to something like a rock. Then it opens its shell and lets in the salt water. In this way, the water brings the oyster things to eat. After awhile it gets fat, and then it is ready to be caught.

The oysters shell is very rough on the outside, but on the inside, next to its body, it is very smooth and beautiful. The oyster makes this smooth, beautiful covering inside its shell by sending out something to harden and to coat it. The inside of an oyster shell looks as if it has been covered with enamel.

How Fish are Caught

The fish which are shipped from Norfolk are not caught with hook and line. As you sail along the winding coast, you will see many posts sticking out of the water. These posts have

very large nets tied to them. These nets are put there to catch fish. If you could see under the water, you would see a long, straight net, and a round trap out at the end like this:



A net for catching fish.

The fish swim along until they run into the straight net (marked A). Then they follow the net into the trap. When they are in the trap, they try to get out, but they do not have enough sense to turn around and swim back out. Instead of that they keep trying to get through the net. At certain times during each day boats are sent out to pull in the nets and get the fish. Thousands are caught at one time. They are taken to shore and packed in ice for shipment to cities.

Tidewater Farms

If you would sail into one of the little bays along the Chesapeake Bay you would see piers built out into the water. These piers are built for just such a boat as you are in. When you tie your boat to a pier and get off, you may walk down it, for it is exactly like a wooden bridge. These piers lead you ashore to farms on which people raise many kinds of vegetables, peanuts, celery, asparagus, peaches, apples, cantaloupes, figs, grapes, plums, and cherries.

The peaches from this tree found an easy market in Boston.

These cherries are almost as large as half-dollars.

The roads leading away from these farms are usually covered with oyster shells. This makes a very good, hard road. These roads wind in and around farms which are along the water front and further back from the water. For many miles along the coasts of Tidewater Virginia — all around the Chesapeake Bay and along the creeks — there are many of these farms. This is a trucking section. The farmers are called truck farmers. They send what they raise to cities to be sold in the city markets. It is from these farmers that city people get their fresh vegetables and fruits.

Little settlements are made along the creeks where the water is deep enough for boats to go.

Tidewater Virginia is famous because of the Chesapeake Bay, where many fine oysters and fish are caught and shipped. It is also well known because of the many fine truck farms which help to supply the people of the cities with vegetables and fruit.

Cantaloupes

Peanuts

Here is a picture of a field of peanuts near Norfolk.

A great many peanuts are raised in Tidewater Virginia. Peanuts are very useful. Over one hundred different things can be made from them. Some of these are milk, cooking oil, salad oil, candy kisses, flour, breakfast foods, cow feed, a floor covering like oil cloth, and dyes. In Tidewater Virginia more peanuts are ground up and roasted than in any other state in the United States.

Dismal Swamp and Lake Drummond

Virginia's only large body of fresh water is Lake Drummond which lies in the heart of Dismal Swamp. The water of Lake Drummond is useful because it is so pure. It is the color of amber, because cypress and juniper trees which grow in it give it this color. It is fifteen miles around the lake.

Dismal Swamp, which surrounds the lake, is full of wild animals and trees. Leaves and branches have been falling from the trees into the water for hundreds of years. In this way beds of peat have been made. Peat can be dried and used for fuel. When you see the swamp, you see the way coal was formed even up in the mountains where swamps once were, but which are now dried up.

Boxes and barrels made from timber which came from Dismal Swamp.

The woodman's axe is cutting down the trees. Out of them are made buckets, tubs, shingles, barrel-staves, boxes and ship timber. It is from these trees that farmers who raise and ship potatoes and vegetables get their barrels and boxes.

The Dismal Swamp Canal to Lake Drummand and the waters of North Carolina.

Oysters cling to any hard body they find in the water, 20,000 of them tried to grow on this iron barrel hoop placed near a bed at Northampton, Va. Many dropped off later.

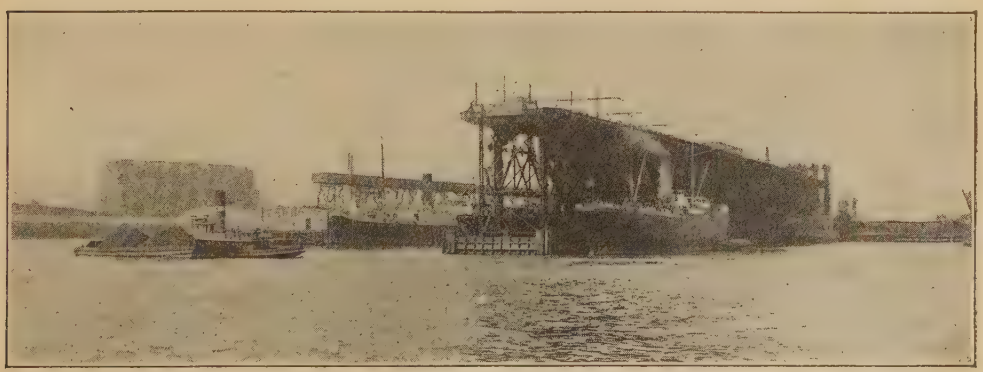
CHAPTER IV.

COMMERCE

Large numbers of oysters and fish are sent to the city of Norfolk. Some of them are sold to the people of this city, but most of the oysters and fish are sent from Norfolk on boats and trains to other places. Many vegetables, peanuts, and fruits are sent to Norfolk to be shipped.

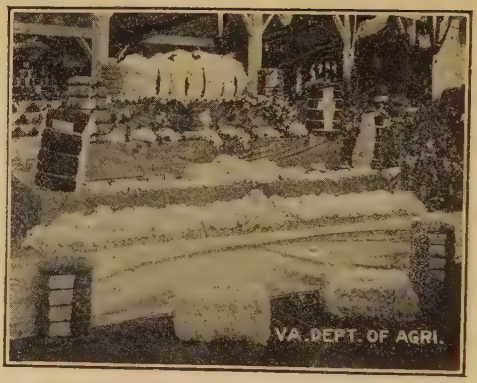
At these piers freight is being loaded.

Many large boats come across the Atlantic Ocean, between Cape Henry and Cape Charles, and into the Chesapeake Bay. Some of these boats steam into the Elizabeth River right up to the city of Norfolk, while some go to Newport News. But these large boats do not come to get oysters, fish, and vegetables. They want coal which has been brought from the mines in the mountains. They also want lumber which has been cut from trees nearby, and especially from Dismal Swamp.



Steamships being loaded with coal at the piers of the Chesapeake and Ohio railroad. To the left a tug is towing a barge.

There are many large docks or piers for loading ships with coal and lumber. Ships which get coal usually sail out of the bay into the Atlantic Ocean on their way back to Europe or South America. These boats are so large that a whole train of cars of coal can be dumped into them. When the bottoms of the coal cars are opened, the coal rushes through large chutes down into the boats. This is done so quickly that many of these boats can be filled in a day.



A cotton exhibit at the State Fair.

Cotton is raised in the section of Virginia south of Norfolk and along the North Carolina line. After it is picked, it is put into bales and much of it is sent to Norfolk to be shipped. It is then made into cotton cloth and other useful things.

A field of cotton near Emporia.

The Calico's Story *

Once I was very tiny and all covered with a brown coat. I had many brothers and sisters. We lived in the sunny South, and were kept huddled close together in a strong bag.

One morning the people who lived in the house were up earlier than usual. I heard the master say: "Tom, you may plant my cotton seed to-day."

Cotton seed was my name, and I wondered if it were better to be planted than to be tied up in a bag. But while I was thinking, Tom picked me up with the others. I was soon put into a little bed close to a jolly river.

I loved to listen to the water as it laughed on its journey to the sea. I wanted to see it, but my coat fitted so closely that there was no chance.

But I began to feel larger and larger. One day my snug coat split, and I popped right out of the ground. Was I not happy, then? I had a green body and two green leaves. I stretched my head higher, and at last I had three beautiful blossoms.

I think I must have been vain, for all my beautiful petals left me to go with Mr. Wind. I mourned for them every day, but, to my surprise, the little bolls left by the blossoms burst. I was covered with cotton as white as snow and as soft as silk!

I was as happy as a queen! The cool wind fanned me. The sunbeams came to warm me, and the dear old river lulled me to rest. I did not need any other friends, but I found that I had some, soon.

"Come, children," I heard Aunt Chloe call, "we must pick the cotton."

And the children did come—a dozen woolly heads, and twice that number of shining eyes. One little fellow cried out: "Oh, did you ever see nicer cotton?" And in a minute all my white was held in his little black fingers. Next I was riding in a basket on top of Tom's head. Then I was in a cart on my way to the "gin."

I was sorry as I left the fields, and said: "Goodbye, old seed and leaves. Goodbye, dear river."

When I came to the "gin," a machine took from my downy

* By permission of *The Youth's Companion.*

grasp many little fellows dressed in brown coats. They looked just as I did before I went to sleep in Mother Earth.

My next trip was in a bale. I was loaded on a big ship which sailed on a great sea. I liked this bale and the ride. It made me think of the river where I used to live.

By and by the ship stopped. I was carried to a large house where I heard "buzz, buzz, buzz." So many strange things happened to me that I wondered what would be the end of it all. I was cleansed, and twisted, and spun, and woven, and bleached. At last I found that I had become white cloth.

One thing I enjoyed here was the old river that rushed along. It turned heavy wheels that made the spindles buzz and the shuttles fly.

My next journey was through a printing machine. At first I was white. But this machine sent me under a roller which left little bunches of red cherries all over me. Then I went under another roller which put green stems on the cherries, and left green leaves close to the stems. A third roller left brown twigs where all the stems and leaves ought to hang. Prettier bunches of fruit you never saw.

Now my white was almost gone, but what was left was made black by a fourth roller.

I went under these rollers so quickly—a mile an hour—that I could not see very much. But I know that cherries were cut into the first roller, and they had red dye on them. The leaves and stems were cut into the second roller, and covered with green dye. The twigs were cut into the third roller, with brown dye all over them.

I wondered if some of the leaves, twigs, and stems might not print themselves in the wrong place, but they never did.

After I left the black dye roller I was dried, folded, and sent to a shop in a noisy city. There I lay on a shelf.

One day a little country girl came into the store with a basket of eggs. She wanted to look at me. Just think, she gave the shopkeeper all of her eggs for eight yards of me. Then I was

made up into a dress, with pretty ruffles at the neck and sleeves. I gave much joy to the little girl, who always liked to wear dainty things.

On her way to and from school she used to sit upon a log to rest. Here I used to watch the plants which grew near, but they were very unlike my old self. They did not grow in a warm country. What I enjoyed most of all was a river which flowed near and sang the same song as my old friend had sung.

Hampton Roads

There is a large, beautiful body of water between Norfolk and Newport News. This water is called Hampton Roads. It is a favorite place for the ships of our navy. Sometimes fifty or more foreign steamships and our battleships may be seen in Hampton Roads, as well as sail boats and barges.

The first lighthouse in the United States for guiding air pilots.

The first lighthouse in the United States built for men who drive aeroplanes, called air pilots, is at Hampton Roads. The powerful searchlights can be seen by the pilots at a height of six miles. By means of this they can make safe landings at night.

James River water-front at Newport News.

Tidewater Cities

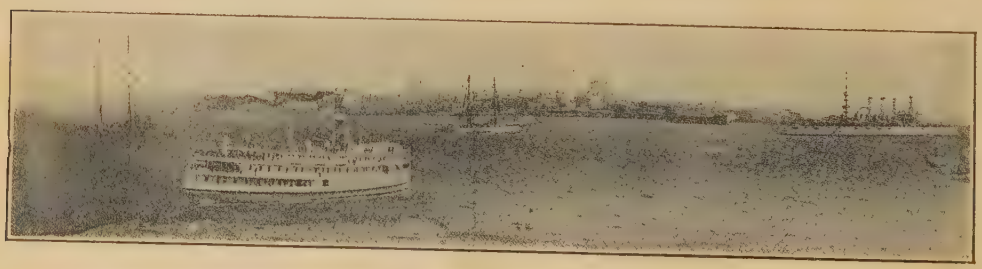
Because Hampton Roads is such a fine harbor for ships, a number of cities have grown up around it. The largest of these is Norfolk. It is here that ships can get cotton, coal, and many other things to carry far away across the ocean. Because of this, it is a well known city. This kind of city is called a "seaport," because it is a city by or near the sea or ocean.

Norfolk is in touch with the West by means of the Norfolk and Western, the Virginian, and Chesapeake and Ohio railroads; with the North, by the New York, Philadelphia, and Norfolk railroad; and with the South by means of the Seaboard Air Line, the Southern, the Norfolk-Southern and the Atlantic Coast Line railroads.

Steamship lines connect Norfolk with Baltimore, Washington, and the inland cities; also with northern cities and with foreign lands. The Albermarle and Chesapeake Canal and the Dismal Swamp Canal connect Norfolk waters with the bays and sounds of North Carolina. It is through these, too, that cotton, fish, shingles, staves, juniper logs, railroad ties, and lumber are sent to Norfolk.

Not far from Norfolk are two summer resorts,—Virginia Beach and Ocean View. Automobiles and electric cars can reach these places in a short while. Virginia Beach is on the Atlantic Ocean, and Ocean View looks out on the Chesapeake Bay.

Below is a picture of the harbor at Norfolk. The word "harbor" means a place to rest. Ships which have been out on the ocean are glad to get to this beautiful harbor. Here they can rest and get ready to sail away again. There are four boats in



The harbor at Norfolk.

the picture. Two of the boats are anchored. One of these is a small sail boat with two masts. The other is a battleship, which has gotten coal for its engines. The boat nearest your eye runs up the Chesapeake Bay to Baltimore and back again. It carries passengers and freight. The boat on the left, in full sail, is loaded with oysters. Over in the distance you can see the city of Norfolk.

the offices of the people who manage the boats which load and unload at Norfolk. Boats which come into Norfolk for coal have to pay much money for it. This money is put into banks. Farmers and fishermen want to be paid money for what they bring. The money with which to pay them comes from banks.

Just across the Elizabeth River from Norfolk is Portsmouth. This city has a splendid harbor

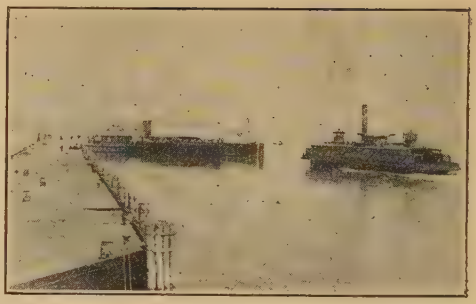
An airplane picture of Norfolk.

This is an airplane picture of a part of Norfolk. In the buildings you see in this picture are

which is suited for the largest vessels. The United States has a fine navy yard and hospital for

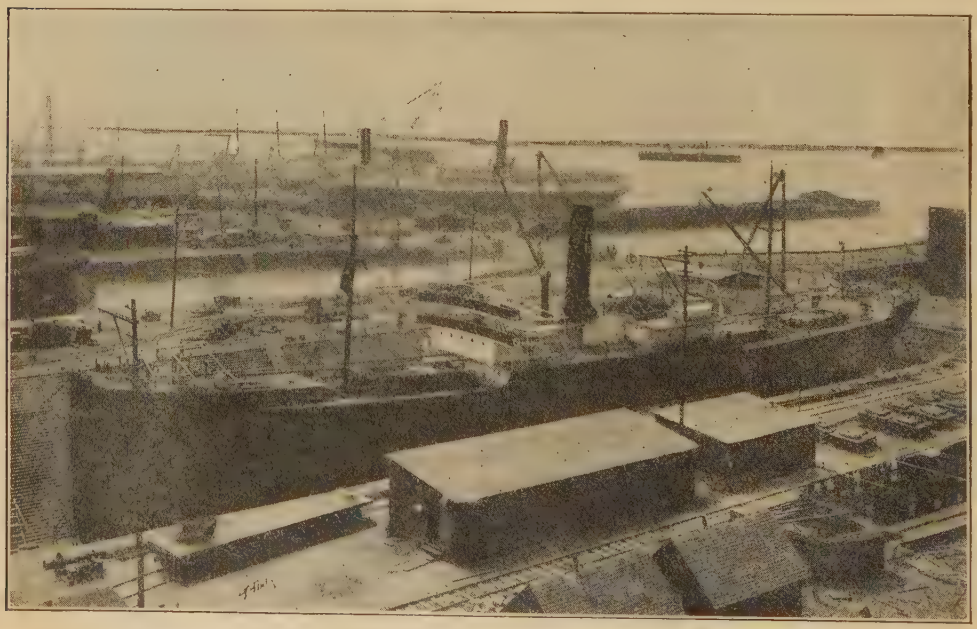
sailors here. Many thousands of people are employed in growing truck vegetables for market, and in planting and harvesting oysters.

Newport News is 4½ miles from Norfolk; but to go there from Norfolk you have to ride on a ferry boat.



To get from one place to another, especially between cities, ferry boats are used.

Boats, like automobiles and engines, get out of order and have to be fixed. When they leak or have to be painted, they are run out of the water so men can get to the bottom of the boats. Very large boats have to be fixed, too. They get out of order as well as do the little ones. These large boats are run into a dry dock. When they get



Dry docks, where large boats are repaired.

The shipyard at Newport News.

into the dry dock, the water is let out and huge gates keep the water from running back.

Many ships are made at Newport News. Some of the largest battleships of our navy and large ocean steamers have been built here. Only New York and New Jersey build more ships than does Virginia.

At Hampton is the National Home where old and disabled soldiers live. There is also a famous school for negroes here. It is called Hampton Institute.

Phoebus is a town nearby, and Old Point Comfort is the home of Fortress Monroe, a beautiful spot, and once important for defence of our coast. Since we now have battleships and destroyers, the fortress is now used as a place to train soldiers. Buckroe Beach, a seashore resort, is only two miles away.

In the counties west of the Chesapeake Bay there are few towns. Suffolk, in Nansemond County, is a point at which several railroads cross on their

way to Norfolk. Much manufacturing, especially of peanuts, is done here. Lumber is shipped from Suffolk. Williamsburg, in James City County, is a town that is well known in history. Smithfield, in Isle of Wight County, is famous for its hams, especially the Smithfield ham, the best known of all Virginia hams. At Yorktown, on the York River, was fought the last battle of the Revolutionary War, when George Washington defeated the English general, Lord Cornwallis. In the deep water here at the mouth of the York River, the United States kept many of our fighting ships during the World War. This was done because

Hampton: See how level and flat the land is. Notice the concrete walls and the creeks.

they could make a quick trip against the German ships if they needed to do this. From West Point, in King William County, and on the York River, a regular line of boats runs to and from Baltimore. Near West Point, in Indian Town, there is now a small tribe of Pamunkey Indians, who are said to be great-grandsons and great-granddaughters of Powhatan's tribe of Indians.

These Indians still hunt deer, rabbits, wild turkeys, sora and other birds. Each Thanksgiving their chief brings the governor a fine turkey and gifts of game and fish.

Visitors to Virginia

The family were all at the dinner table. John was telling his father that he knew that a great deal of coal and lumber was shipped from Hampton Roads to foreign countries.

"Do you know that we have to get many things from foreign countries, John? Some are right here at this table," said his father. "Do you know where the chinaware came from which we are using? If you children will look on the bottom of each piece you will see a stamp which will tell you where it was made."

The children looked, and each child cried in turn: "This saucer was made in England;" "This was made in Japan;" "Mine was made in Austria;" "Mine, in France."

"Yes," said father, "our china comes from all of those places. Some of it you will find was made in this country, too; some of the best is made in France."

"Where does coffee come from?" asked little Mary.

"Does anybody know?" asked father.

"Yes, sir," said Lucy, who was twelve years old. "It comes from South America—from Brazil."

"You will be surprised," said father, "to see from how many places the food here at this meal comes from. Rice comes from China, olives from Italy, and cheese from Switzerland."

"Where did our roast beef come from?" asked John.

"From right here in Virginia," replied his father. "And so did

the sweet potatoes and the flour from which our bread is made. Your mother made the pickles, you know."

"Did the bananas come from Virginia, too?" asked little Mary.

"No, indeed!" replied John, with a laugh. "They are visitors. They came from down where it is hot all the time."

"From what place?" asked father. "Lucy, do you know?"

"From Jamaica, I think," replied Lucy.

"That is right," said her father. "But here is the dessert — date pudding — and the nutmeg. Does anybody know where dates come from? Well, they come from Arabia, and the nutmeg comes from Brazil. Dates are dried in the sun, packed in big straw boxes, placed on the backs of camels, and hauled to big ships which take them to the United States, England, and France.

"Coffee travels a long distance to get to us, too. First, it is gathered and dried, and then it is placed in large, cloth sacks. Instead of being loaded on camel's backs, coffee is put on the backs of little South American burros, which carry it to a seaport where the coffee is loaded on a ship bound for the United States. When it gets here it is packed in cans and sent to our grocers, where we buy it."

"Father," asked John, "all fruit doesn't come from Jamaica, does it? I know we get some fine fruit right here in Virginia."

"That is rght," said his father. "We do get some fine fruit here in our state—some of the finest; but we do not get grape fruit and oranges from Virginia, because they come from Florida. Our raisins come from California. We get fine nuts here in Virginia—pecans, walnuts, and other kinds; but almonds come from Morocco, which is in Africa."

"Isn't hominy made right here?" asked Lucy.

"Yes," proudly replied John, "I know that. But our sugar comes from Cuba."

"You see," said father, "how many things we have here at the table which came from foreign countries. They get things from us and we get things from them. These things are loaded on ships

at seaport cities and sent across the ocean. John, you said that Norfolk is a great seaport. So it is; and there are others in our country—New York, Charleston, South Carolina, and San Francisco. Norfolk and other cities around it are easy to get to from all parts of the world. Hampton Roads is a great place, and some of these days even more commerce will be carried on there.

"Well, if you are through dinner, we will be excused."

When they left the table they walked over rugs which came from Persia, and Lucy began playing on a piano, the wood of which, came from Central America.

"I declare, the world is a busy place!" exclaimed John.

The *Leviathan*, the second largest of ship, at the Newport News Shipbuilding and Dry Dock Company's plant. Here it was made into an oil-burner. This great ship now belongs to our government. It was built by the Germans and was seized during the World War. The three smoke funnels ars so large that a railroad train could run through any one of them as if were a tunnel. This ship is 950 feet long or about two and one half city blocks. If stood on end, this boat would be much taller than the world's highest building—the Woolworth Building.

Coastline, rivers, valleys, mountains and railroads of Virginia.

CHAPTER V.

THE EASTERN SHORE

Large flat boats, called barges, carry trains of cars across the Chesapeake Bay from Norfolk to Cape Charles. Regular railroad tracks are on these barges, and the cars are pulled from these tracks to the tracks on land. The New York, Philadelphia, and Norfolk Railroad runs straight through the peninsula to northern cities. The cars that are carried across the bay on barges run on this railroad.

It is seventy miles from one end of this peninsula to the other. There are two counties on the peninsula. One is Northampton, the other, Accomac. The land is flat and there are many bays, inlets, creeks, streams, and islands along the shore. The Atlantic Ocean is on one side—the east, — and the Chesapeake Bay on the other side,—the west. This peninsula is called the "Eastern Shore of Virginia."

The land is very rich. Most of the people who live on the Eastern Shore are truck farmers. They raise early vegetables and farm products — Irish potatoes, sweet potatoes, turnips, corn, cabbage, onions, strawberries,

The Eastern Shore. From this map you will see that there are no cities on the Eastern Shore. But there are large cities near it. The Eastern Shore may be called "The Garden of Big Cities."

and melons. If these products are gathered here in the afternoon, they can be bought next morning in Philadelphia, New York, and other northern markets.

A field of onions.

In the county of Accomac, more sweet potatoes are raised than in any other county in the United States. Five out of every one hundred bushels of sweet potatoes raised in the United States are grown in Accomac County.

Many Irish potatoes are raised on the Eastern Shore. When they are ready for harvest, they are dug out of the ground, and are put into barrels.

Wagons are loaded with barrels of potatoes and they are

Berry pickers.

hauled away to be shipped.

They are going to ship these potatoes to large, northern cities, which trains can reach in a few hours.

Many people on the Eastern Shore catch and ship fish and oysters. Almost all of the soft crabs used in the United States are caught here.

In Northampton County, sheep, cattle, hogs, and chickens are raised. Pine, oak, walnut, and hickory trees grow.

There are many barrel mills on the Eastern Shore. These make thousands of barrels for the farmers.

Gathering potatoes on the Eastern Shore.

Hauling potatoes to be shipped.

Barrels of potatoes ready to the shipped.

Getting ready for winter.

Climate of Tidewater Virginia

In Tidewater Virginia the land is smooth, even, and almost level with the sea. If you dig into the ground very far you will come to water. When houses are built it is not easy to keep water out of the cellars. In Norfolk and other cities, the skyscrapers and other large buildings have to be built on piles which are driven into the ground with a pile-driver.

During the months of May, June, July, and August, there is much rain. If we put a pan out in the open to catch all the rain that falls during the month of May, we will find about five inches of water in it at the end of the month. If we kept the pan out for a year, it would catch about forty-five inches of water. This is what is called the annual rainfall.

The thermometer in Tidewater Virginia goes up highest in July and August. If we kept a record of the temperature for each month, this is what it would probably be:

Winter			Spring			Summer			Fall		
Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
42	40	40	45	55	65	70	72	75	70	60	55

During the summer months, which is the growing season, there is much rain. The sun draws up water from the ocean and the Chesapeake Bay, and the winds blow the clouds, filled with moisture, over the land where they meet the cold air high up in the sky. When this happens, it usually rains. Much warm air and cool air meet over Tidewater Virginia in May, June, July and August. When it rains, thirsty vegetables, fruits, and trees eagerly drink the water. Plentiful rainfall, light soil, and bright sunshine, all help to make early crops for the farmers in Tidewater Virginia. The products are rushed to city markets where they bring high prices.

The land is so flat in Tidewater Virginia that the rain water does not easily run off into the bays and inlets. Much of it stands in marshes and pools. Mosquitoes make their home in this standing water. The bites of some mosquitoes cause malarial fever. Now that we know how to fight mosquitoes, we can protect ourselves against them.

A large number of sweet potatoes are shipped from the Eastern Shore. The main crops are Irish and sweet potatoes. Accomac and Northampton counties (the Eastern Shore) are the two richest farming counties in the United States.

The falls in the James River at Richmond, one of the places where Tidewater Virginia ends.

CHAPTER VI.

CITIES AT THE HEAD OF TIDEWATER VIRGINIA

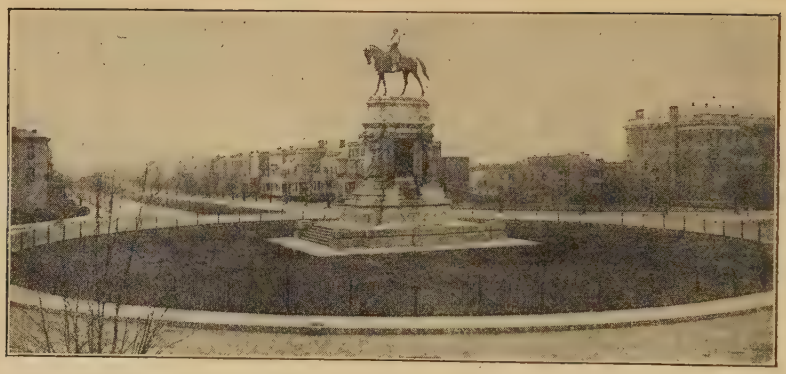
If Captain John Smith had sailed further up the James River to make his settlement, he would have come to a place where his boat could go no further because the river gets shallow. Many rocks are in it, for the country is hilly. Where our rivers tumble down over the rocks there are four cities — Richmond, Petersburg, Fredericksburg and Alexandria. If we should draw a north and south line beginning at Alexandria and let it pass through each of these cities to the North Carolina line, the Tidewater section is on the east, and Middle Virginia is on the west as far as the foothills of the Blue Ridge mountains. Tourists going from Washington to the South travel on the Richmond-Washington highway which almost makes this line for us.

Richmond

Richmond, our capital and largest city, is built on seven hills. The James River flows through the city.

In the city there are many monuments. One of its streets is named Monument Avenue because of the monuments erected in it. The group of statues in the Capitol Square, among which is the equestrian statue of George Washington, remind us of our colonial, Revolutionary, and national leaders. In and around Richmond are monuments of Generals Lee, Jackson, Hill, and J. E. B. Stuart of the Confederate Army; a monument to the Confederate soldiers and sailors; and one to Henry Clay. In Richmond, also, is the historic St. John's Church.

The building in Richmond of most interest is the Capitol, where the governor has his office and the State Legislature meets. The Confederate Congress had its session here during the "War between the States." In the



The statue of Lee on Monument Avenue.

Capitol Square are the Governor's Mansion and the State Library Building.

There are many fine hotels in the city and people gather in Richmond for meetings and conventions. Thousands of tourists pass in and out of Richmond, and most of them make a tour of the city to see the interesting and beautiful sights.

The Confederate Museum and the Valentine Museum contain relics of historic interest. In Battle Abbey there are beautiful paintings and portraits.

The Medical College of Virginia, the University of Richmond and the Union Theological Seminary are large schools in the city. Union University is a school for negroes.

Hollywood Cemetery is noted as the burial place of Presidents Monroe and Tyler of the United States, and of President Davis of the Southern Confederacy.

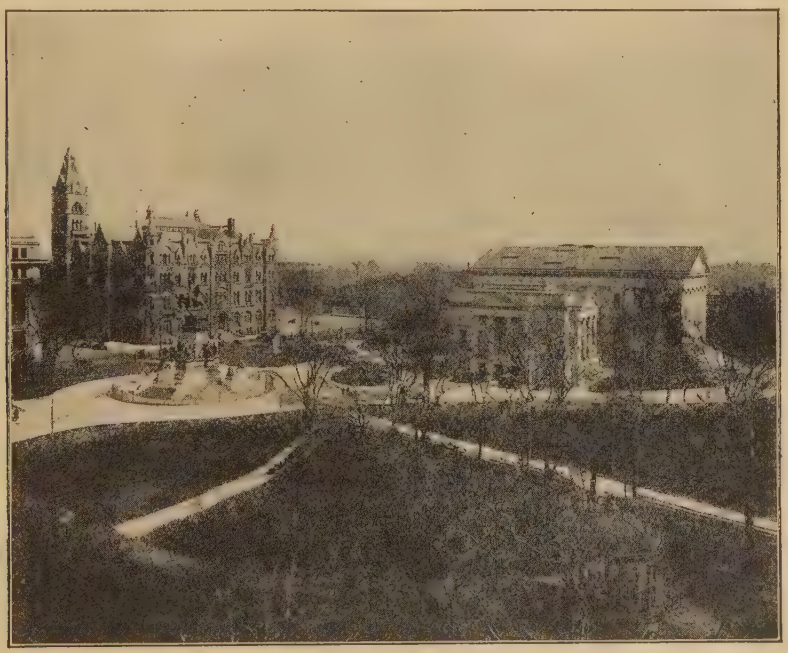
Richmond has many factories which make hundreds of different things, with tobacco, iron, flour, and wood products leading. There are so many different kinds of factories in the capitol city that the raw materials come from all parts of the state and from other states and countries by boats, railroads, automobiles, and wagons. Almost half of the tobacco which is grown in Virginia, North Carolina, and South Carolina is made into cigars, cigarettes, and chewing tobacco in Richmond.

The first iron manufactured in

the United States was made near the city. The first coal mined in this country was also mined near Richmond. Little of this coal and iron is now used, for coal and iron are now gotten from the mountains. Out of iron, Richmond factories make railroad engines, stoves, plows, and many other things.

A great deal of wheat which is harvested in Virginia is made into flour in Richmond's flour mills. The hardwood of the mountains, the soft pines of Tidewater, and the cedar and gum trees of Dismal Swamp are sent to Richmond to be made into many different articles. Factories which make paper bags, blotting paper, chewing gum, bricks, and many other things are located in Richmond.

There are six railroad lines which come into the city. Besides these railroad lines Richmond has the use of boats on the James River for shipping.



The statue of George Washington in the Capitol Square.

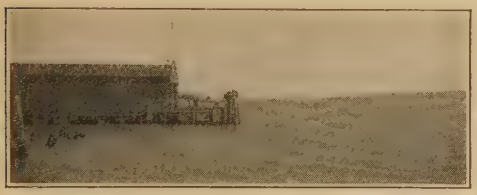
About two square miles of Richmond. In the front is the Tredegar Iron Works, where the iron plates were made for the first iron clad vessel—the Merrimac. State penitentiary is in the center.

Petersburg

On the Appomattox River, twenty-three miles from Richmond, is Petersburg. It has a large trade of manufactured tobacco, and loose-leaf tobacco is sold in the city. It has peanut factories, trunk factories, and other kinds of factories. Several railroads pass through the city. Steamboats come to its wharves. Around Petersburg were fought many of the battles during the "War between the States," and earthworks behind which soldiers fought are still seen around the city.

Fredericksburg and Alexandria

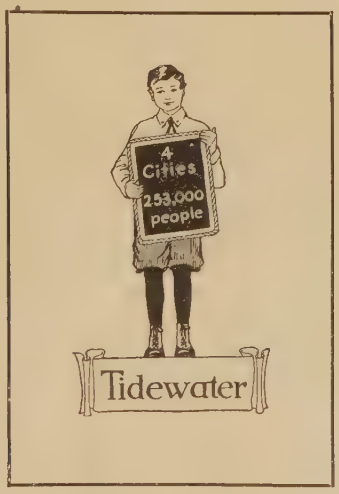
Fredericksburg, on the Rappahannock River, is a city which is well known in history, because the country was also the scene of many great battles. It has good water power for its flour mills and other factories.



The river front at Alexandria.

Alexandria, on the Potomac River, is but seven miles from Washington City. It is also near Mount Vernon, the home of George Washington, and Arlington, the home of Robert E. Lee. Six railroads have their shops here.

All these cities are "river-ports," because they have the use of rivers for shipping.



The Story the Blotting Paper Told *

"Oh, Mother! What a nice writing desk," cried little John one Christmas morning, as he looked over his presents. "I have been wanting one for ever so long, and——— But where, I wonder, did you get this pretty green blotter?" he asked as he spied a neat, green blotter lying upon the desk. "I dreamed last night that each of my presents told me a story."

"We will!" exclaimed the presents in a chorus.

After breakfast John sat down and said, "Now, my pretty blotter, I want to hear your story first."

"All right," replied the blotter. "But you must listen well, for there are some things that have happened to me that you have never heard of before."

"I was once a dirty rag in a junk shop in Egypt," began the blotter. "When I left home I was hauled on an ocean steamer with other rags, none of whom I knew. I was very lonesome, and the trip was a long one. After several weeks, our boat steamed into Norfolk. Then we were hauled to Richmond.

"When we landed there, we were all put into a wagon and hauled to an old brick house which was to be our home for a little while. From the windows we could see the James River on one side and the railroad on the other.

"How long did you stay there?" asked John.

"Oh, not very long," replied the blotter. "After awhile some men came along and carried us into another room, where we were taken from the bale we had been strapped in. I certainly breathed more easily now. I was then taken to a rough, but kind-hearted woman, who cut the buttons off of me. After this I was put into a large machine, which blew all the dust off of me."

"What in the world are they going to do with us?" asked another rag.

"I was told that we were going to be made into blotting paper at the biggest blotting paper factory in this country," I replied.

"What is the name of this factory?" it asked.

* This story was written by Estelle Nance when she was twelve years old and in the Powhatan School, Richmond.

"The Standard Paper Manufacturing Company," I said.

"Well," said the other rag. "I hope they will make us into pretty blotting paper."

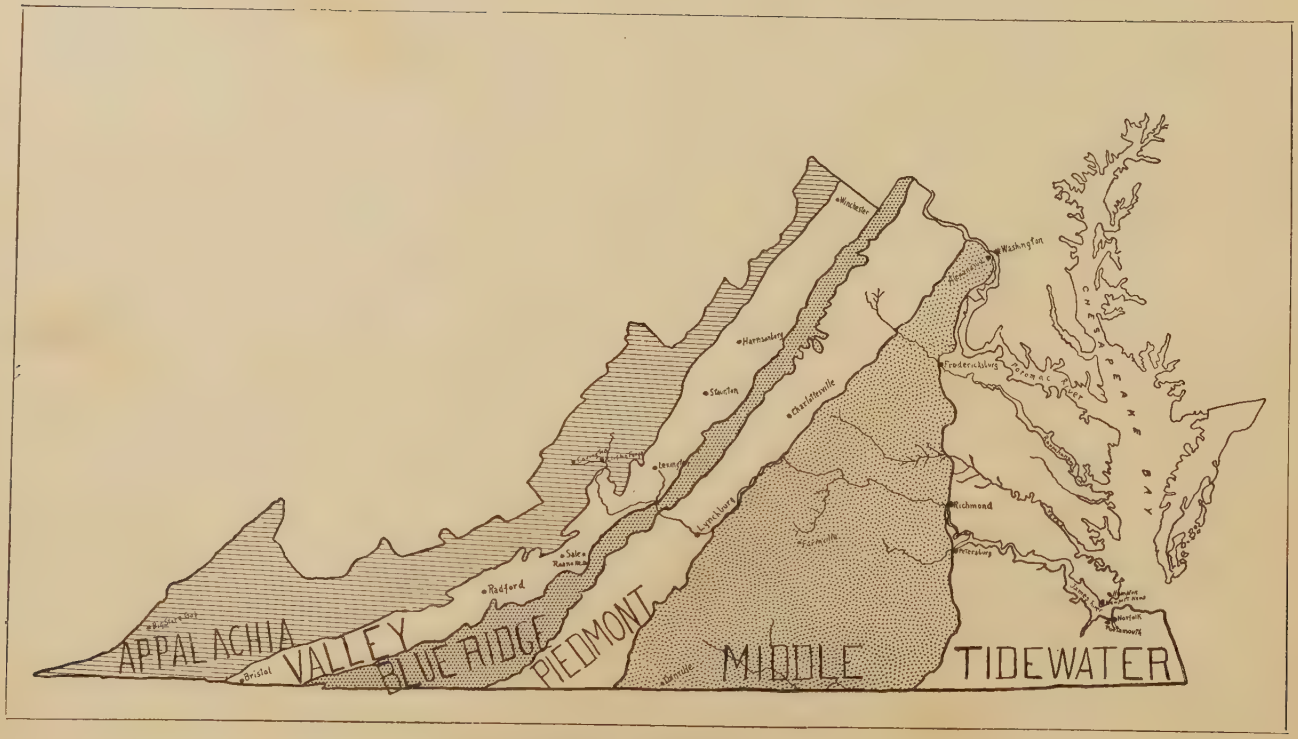
"Then I was put into another machine and cut into shreds. I was again dusted and sent on to great boilers where I spent ten hours in great pain on account of the caustic soda which ate me into small fibers. On coming out of this, I entered the Hollanders, which are large tubs with sharp knives at the bottom, and the water whirled me around and around until I was cut so small that I hardly knew myself when I came out. I was then bleached with acid and sent downstairs to a large vat where I stayed three weeks to drain.

"On coming out of the vat, I was put into a mixture of water and green dye, where I was thoroughly mixed. I was then put on the Foudrinier machine, which shakes constantly and brings the fibers together away from any waste matter.

"I was then put on felt rollers, where I was pressed together. I next passed on to a series of rollers, and, on coming out, I found myself a dark green blotter.

"Then I was packed with other blotters the same size and color as myself, and sent away to a store, where your mother came in and bought me. That is my story," concluded the blotter. "I hope you liked it."

"It was a very nice story," said John, "and I thank you very much. As it is now rather late I will go out and play, but some day I shall hear each of your stories," he said, looking happily at all of his things. Then he left the house and had a long romp with Jack, the big shepherd dog.



The sections of Virginia.

CHAPTER VII.

MIDDLE VIRGINIA

A field in Middle Virginia.

Tidewater Virginia is a flat level section, but Middle Virginia is a rolling country. Low hills are close to one another, but there are no mountains.

Crops

While the Indians were living in Virginia, woods and forests covered the land. When the white men came and took the land, they cut down the forests. On this cleared land they raised crop after crop of tobacco to send to England where they got a good price for it. But they soon found that this not only made the land "poor," but also

made the tobacco poor. Then many people moved to new land near the mountains, where only the Indians had been living. Again they cut down trees and cleared the land for planting tobacco. Soon this land also became poor. They did not want to go up in the mountains. What were they now to do?

They knew that they could not keep on planting tobacco and nothing else. So they tried planting other things — corn, wheat, and vegetables. They learned that if they grew clover and ploughed it under the ground and let the roots rot, this would help to make poor land better.

As soon as they learned these things, other crops than tobacco were planted and they thrived. Fine corn is now raised in Middle Virginia.

Fine corn is raised in Middle Virginia.

After the corn gets ripe it is stacked. It is then put away into barns to be used in winter to feed cattle and hogs.

Hay and pea vines are also valuable as food for horses and cattle.

Long ago the Indians had taught the white men that fish, when put under the ground, would help to make corn grow. There is something in fish bones that makes the ground rich. Different things are now mixed in factories, and this is sold to farmers who spread it over the ground to help things grow. It is called "fertilizer," and it is used a great deal by Virginia farmers. There are factories in Middle Virginia which make large quantities of fertilizer.

People who live in cities need meal, ham, pork, mutton, and beef. In Tidewater and in Middle Virginia there are seven cities and many towns. Railroads run through Middle Virginia, carrying food and other products to

A fine pea field.

the millions of people in the cities of Virginia and elsewhere who must be fed.

Live Stock

Our people eat a great deal of meat. It takes large quantities of corn, hay, and grass to feed the hogs, cattle, and sheep from which meat is gotten. Because corn, hay, and grass are raised so easily in Middle Virginia,

Dairy cows enjoying a meal in the fields.

large numbers of hogs, cattle, and sheep are also raised.

People in cities also need milk, butter, and cheese. Cows which are raised for this purpose are called dairy cattle. In Middle Virginia there are many dairy farms.

If a farmer wishes to make money on a dairy farm, his cattle must have plenty to eat. The growing season is so long that cattle can graze on the grasses for ten months out of the year. The winters are so short and large cities are so near, that dairy farms in Middle Virginia can make money selling their milk and butter.

Alfalfa

Milk must be hauled to town and sold as soon after the cows are milked as possible. There-

Raising hogs on alfalfa

fore good roads are needed. Wagons and automobiles can use these roads and get milk to town in a hurry.

Middle Virginia is just the section in which to raise hogs. Besides good food for them, there is plenty of shade and pure, running water. When hogs have this chance, they do not get sick or have diseases so easily.

Tobacco

John Rolfe, who married the Indian Princess Pocahontas, was the first man to ship tobacco from our state. Since that time much tobacco has been raised and shipped.

The people in Middle Virginia still raise a great deal of tobacco, and much money is made on it.

After tobacco is cut, it is made ready to be "cured." The people you see in this picture are pulling off leaves and stringing them on a stick.

Then the tobacco is put in a barn, and a fire is built to "cure" it.

Getting tobacco ready for "curing".

A tobacco field and barn.

After the tobacco is taken from the barns, it is hauled to warehouses where it is sold. Much tobacco is sold in Danville. Both Richmond and Danville manufacture a great deal of tobacco.

Tobacco is also grown in the foothills of the Blue Ridge mountains. This is where the "Piedmont" section of Virginia begins and where Middle Virginia ends. Fine tobacco is raised in Piedmont Virginia. Cigarettes are made from it. Twenty million dollars' worth of tobacco is sold each year in Virginia.

Cities and Towns

Cotton is also sent to Danville to be manufactured. In this city, which is on the Dan River, there are also flour mills and other factories. At North Danville, just across the river, are mills, factories, and railroad shops.

South Boston, on the Dan River, does a large wholesale business. It is a fine market for tobacco. Along the line of the railroads are many towns such as Chatham, in Pittsylvania County; Clover and Halifax, in Halifax County; Boydton, Clarksville, and Chase City, in Mecklenburg County; Burkeville and Crew, in Nottoway County; Keysville, in Charlotte County; Emporia, in Greenesville County; and Farmville, in Prince Edward County. Most of these towns are tobacco markets. In Hanover County is Ashland, the home of Randolph-Macon College. This town is near Richmond, and connected with that city by an electric car line. Bowling Green, in Caroline County, has a wagon factory and small industries; Columbia, in Fluvanna County; Louisa, in Louisa County; and Manassas, in Prince William County, are fine villages. In the region of Middle

Warehouse, where tobacco is being sold.

A good sand and clay road in Virginia.

Virginia north of the James River there are no large cities.

Rocks and Minerals

The rivers of Virginia which have dried up and those which are still running have left much sand and gravel. These are now used in making concrete, for building roads, and for moulding iron. From Virginia's hills many carloads of gravel are shipped over the state and used in building houses, offices, and roads.

If you have ever noticed a wet, clay road, you will remember that it is very slippery. Automobiles skid easily when passing over wet, hard clay. But clay, when mixed with sand, makes a good "dirt road." Most of the roads in our state are of this kind.

Clay is also used to make bricks. There are brick yards in Virginia where many bricks are made. Some of the best bricks are made in Richmond.

In Goochland and Amelia

What granite rocks look like.

counties there are beds of graphite. This is used to make pencils, stove polish, and to grease bicycle chains and machinery. They also get "fool's gold" in Louisa and Prince William counties. This is sent to factories where it is used in making fertilizers.

As we travel through Middle Virginia we will see men working in quarries. They are breaking up large rocks into stone. These stones are used mostly for buildings. Granite stones are cut into blocks and used in building outside walls of buildings.

Slate, which is also dug from the hills, is used in making roofing for houses. The first gold mined in the United States came from a section running from the Potomac River to Halifax County, but this was not very rich in gold.

South of the James River

The part of Middle Virginia south of the James River and bordering on the North Carolina line is the region of bright tobacco. This region was very wealthy before the "War between the States," when it was a land of large plantations and many slaves. Now the country is divided into smaller farms and dotted with small towns and villages.

This section is well watered. Besides tobacco, the chief crops are corn, wheat, oats, hay, and fruits. Much of it is still covered with forests of pine, oak, elm and poplar. Some of the land is deserted. The Buffalo Lithia Springs, in Mecklenburg County,

A scene in Middle Virginia.

are well known. The water is used in hospitals in cities. Mineral waters are found in Halifax, Prince Edward, Amelia, Powhatan, and Chesterfield Counties.

The Norfolk and Western, the Virginian, and the Southern railroads run through this section and help to make good markets for the cities and the towns.

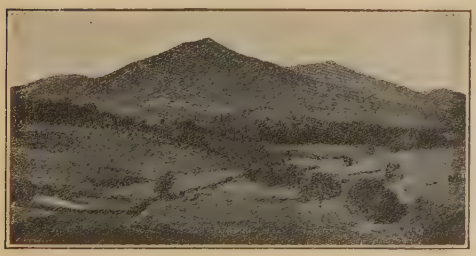
Piedmont, which rests at the foot of the Blue Ridge Mountains.

CHAPTER VIII.

PIEDMONT VIRGINIA

When the Blue Ridge mountains are ahead of us and the foothills are around us, we are in the Piedmont section of Virginia. It is called "Piedmont" because this word means "foot of the mountains."

As we look out of our car windows the mountains in one place look as if some great giant had become angry and had broken a long mountain into pieces. Here and there are mountains which stand by themselves. From the distance these mountains look like knobs. Sometimes these "knobs" are in groups, sometimes in lines, like soldiers. These mountains keep away storms from Piedmont. They also make the scenery beautiful. The Peaks of Otter are a part of this scenery.



The Peaks of Otter.

The mountains are not high enough to be covered with snow all the winter, but they are high enough to be very beautiful and to make summer weather cool.

For thousands of years rains and winds have been wearing away rocks and forming soil. Many streams rise in the Blue Ridge. These flow across Piedmont carrying soil with them. The land in Piedmont made in this way is very rich.

In Piedmont there is enough rain to make splendid crops grow. Besides this, the rain makes many springs and streams. In October, when it begins to get cool, Jack Frost first comes; but

it never does get very cold, nor stay cold for a long time. Only in December, January, and February is it too cold for the cattle to graze. For nine months in the year they do not have to be kept under shelter. This makes cattle very happy, for they do not like to be shut up.

Storage, food and shelter for cattle in winter.

Apples

As we look out of our car windows, we can also see many beautiful apple orchards.

Among the orchards is the home of the Albermarle Pippin apples, so many of which are sold in Europe. Queen Victoria of England is said to have prized Albermarle Pippin apples above all others. There are those who say that the Virginia winesap apple is the most delicious of all our apples. In Patrick County there is said to be the largest apple tree in the world. It is sixty feet high, twelve feet around the trunk, and the spread of its

Apple orchards dot a hundred hills.

Cattle

Sheep

Happy and contented in Piedmont Virginia.

branches is seventy feet. This tree is almost one hundred twenty-five years old. In one season, one hundred thirty-two bushels of apples were gathered from it. Apple growers in our state have worked hard to keep the soil in good condition so as to keep on growing apples. So successful have they been that twenty bushels of apples during one season are now gotten from almost every tree.

Farms

Here is a farm and yonder a farm. On the sides of the mountains we can see many sheep. There is plenty of pasture land for sheep and cattle, too. In one year fifteen hundred carloads of spring lambs were shipped from this section to New York, Philadelphia, and Baltimore.

In northern Piedmont, horses like these are raised. Many thoroughbred horses are sold, especially in Louden County.

Horses in Piedmont Virginia.

If you went out among the farms during the growing season, you would find farmers raising corn, wheat, oats, and rye. Fine

tobacco is raised in Piedmont Virginia.

A field of fine Piedmont tobacco.

The crops and fruit trees send their roots down into the rich soil after food and water. The ground holds the kind of food of which crops and fruit trees are very fond. Crops and fruit trees reach out and breathe the fine air of Piedmont through their leaves.

These are the reasons that the Piedmont section is good for crops and fruit trees.

Sometimes Jack Frost comes right after warm weather begins, and when the apple trees have begun to bud. If the frost is heavy, the apple crop may be a failure.

Why Factories Are Built

Why do we not all live in the country where we can get food easily and where we do not have to stay "dressed up" all the time? When there were no large cities in Virginia and everyone lived on farms, people tried to raise enough to eat and wear. When they could not do this they would trade with their neighbors. But they found that they needed more things than they could get by doing this. When railroads came, people stopped trading in this way. They began to send their hides and wool to one place. A "company" was formed, and a large building was erected. In this building was placed the kind of machinery which would make hides into leather and shoes. This is called a shoe factory. The building in which wool is made into clothes is called a woolen mill.

Among the hills of Piedmont Virginia are the cities of Lynchburg and Charlottesville. The largest and most successful shoe factories in the United States, with one exception, are located at Lynchburg, and large woolen mills are situated at Charlottesville. Since many men and

women have to run the machines in these factories and live in houses nearby, these places have become manufacturing cities. Hides and wool, which are called "raw materials," are sent to these cities from the surrounding country.

Wholesale and Retail Trade

Hundreds of things are made in factories. Still men and women go on making more and more of them. How are all of these things to be gotten to those who need them? The people in the factories are busy making things and do not have time to attend to the business of selling the goods.

Large buildings or warehouses are made to receive the manufactured goods. These buildings are called wholesale departments because the goods are sent out from them in whole packages, or dozens, or bushels. They are bought in wholesale lots by merchants or storekeepers whose stores are in different parts of the city, in the country, or in other cities.

When goods are bought by storekeepers, they are unpacked and made ready to sell. Then all who need these things go to the stores to buy them. They pay for the goods and take them away to use them. This is one way trade is carried on.

Farmers who sell their products to mills and factories are paid by checks on banks of the city. The wholesalers and the people who buy from the stores also use the banks. Wherever there is trade, there are banks.

Factories

Besides shoe factories and woolen mills, there are factories for making iron goods, lumber, dishes, and bricks in Piedmont Virginia. Along the foothills and slopes of the Blue Ridge mountains many kinds of trees grow. These trees are cut down and hauled to sawmills. Many kinds of hardwood trees are cut into lumber with which to make furniture. The bark of some trees is used for tanning leather. Some of the tall trees are used for telephone poles. Some of the small ones are cut into short pieces and used for cord wood to burn in stoves and

A paper mill.

fireplaces. Some of the large trees furnish lumber for cross-ties, which are put under steel rails of railroad tracks. Large numbers of trees are cut down and mashed for making paper. This is called pulpwood.

Summary

In the Piedmont section of Virginia there are broad, fertile valleys. On the hills there are trees which are used for many purposes. There are fields on which are raised apples, peaches, corn, wheat, oats, hay, cattle, sheep, hogs, poultry, and tobacco. There are many pure springs, creeks, and rivers. On account of the fine climate, there are summer and health resorts. The scenery is very beautiful.

Lynchburg and Charlottesville

The largest city in the Piedmont section is Lynchburg, which we have already mentioned. It is called the "Hill City," because it is situated on several steep hills, the highest rising three hundred feet above the level of the James River. Lynchburg is wealthy and prosperous. The river furnishes power for cotton mills, flour mills, candy factories, tobacco

factories, and other industries. The tobacco market is one of the largest in Virginia. Many wholesale houses are in Lynchburg.

Monticello

Charlottesville, which we have said is the home of large woolen mills, is also the home of the University of Virginia. Monticello, the beautiful home of Thomas Jefferson, crowns a hill a short distance from Charlottesville.

The Miller School

The Miller School is not far away. This school was given to the County of Albemarle by Messrs. Sam and John Miller. Born in the "Ragged Mountains" in Albemarle County, these two poor boys had to work hard to make a living and to get an education. One of the ways that they earned money was to go through the briars and pick the wool which sheep had left. Another way was to help make bricks at ten cents a day. They did not go to such a fine school as you do, but just to a log-cabin school. All the time they were struggling, they saw other poor people trying to get along. Then they determined that if they ever made money enough they would build a school for others who were poor. Finally, the brothers went to Lynchburg, which was then just a small town, and began to make soap. This business prospered, and the Miller brothers made money enough to build the Miller School for poor children in Albemarle County. When they died, they left money to keep the school up. This school has been a home for many orphan children in Albemarle County.

Towns

Martinsville, in Henry County; Bedford City, in Bedford County; Culpeper, in Culpeper County; Warrenton, in Fauquier County; and Leesburg, in Loudon County are thrifty towns with some manufacturing plants.

Alexander Spotswood and his men see the beautiful Valley of Virginia.

CHAPTER IX.

THE VALLEY OF VIRGINIA

Alexander Spotswood

It was two hundred years ago that the first white men crossed the Blue Ridge mountains. Alexander Spotswood, then Governor of the state, wanted to go out into the mountains and see the land which the Indians used for their hunting grounds. It was the haunt of bears, wolves, panthers, wild cats, and buffaloes.

In the year 1716, Spotswood, with a few of his men, set out in a stage coach from Williamsburg. It took a long time to reach Fredericksburg. Other people who wanted the excitement of the trip joined the party there. They all got horses, and rode up the Rappahannock River. They crossed the Blue Ridge mountains near Swift Run Gap. Then they came to the Shenandoah River. They went along this river until they found a place where it was shallow enough to get across. Alexander Spotswood and his men who made this dangerous trip and who were the first white men to see the beautiful Valley of Virginia, claimed the land for England.

The land in the mountains is rocky and hard. When horses travel over this sort of ground they need iron shoes. Spotswood's party had come from Tidewater Virginia, where the ground is sandy, and horses do not need shoes. Spotswood discovered iron ore in the mountains. He made a furnace and melted the iron into horseshoes. This was the first iron furnace in America. For this reason Spotswood was called the "Tubal Cain of Virginia," after the first man whom the Bible mentions as having worked in iron. When he returned to Williamsburg, he gave each of his companions a golden horseshoe covered with valuable stones. After this they

were called the "Knights of the Golden Horseshoe." On the trip the party covered 440 miles, and it took them more than a month to travel this distance.

One of the men with Spotswood wrote an account of the trip. After crossing the Shenandoah River, he said, "It is very deep. I went swimming in it. I got some grasshoppers and fish, and another and I, we catched a dish of fish, some perch, and a kind of fish they call chub. The others went a hunting and killed deer and turkeys. I graved my name on a tree by the river side, and the governor buried a bottle with a paper enclosed on which he writ that he took possession of this place in the name and for King George I of England."

When Spotswood and his party had returned, they told everybody about what a beautiful country it was. A few years later, settlers were entering the valley, but they came from Pennsylvania — people of German and Scotch-Irish stock. Now thousands of people live in cities in the Valley. Many thousands more live on farms like this:

A farm in the Valley.

In the Valley

When we get over the Blue Ridge mountains, we are in the Valley of Virginia where the Knights of the Golden Horseshoe went over two hundred years ago. In place of the thick forests that the Knights saw, there are beautiful farms which look like the picture on page 66.

On all sides we see green fields, blooming flowers, green shrubbery, beautiful trees, and fruit orchards. When it is time to pick the apples, we can see many scenes like the picture below.

Instead of wild turkeys and birds of many kinds that Spotswood's party saw, there are now chickens, ducks and tame turkeys; but the mountains around the valley have not changed.

Wheat is the great crop of the Valley of Virginia. Wheat also grows in other places in our state. When Virginia wheat is ground, it makes very fine flour. If the money which is paid for the flour made in Virginia mills each year were divided among all the people of the state, each person would receive about ten dollars.

Cyrus McCormick was born

Gathering and packing apples in the Valley.

A duck ranch

in Rockbridge County. He invented the reaper, which is now used not only in Virginia, but all over the world.

Botetourt County is one of the largest tomato growing counties in the United States. Here they pack one million cases of tomatoes every year.

Here is a story of the tomato plant. What is told in this story might have happened in the Valley of Virginia, because they now raise thousands of tomatoes, put them up in cans, and ship them.

The Tomato Plant *

"Have another tomato, Johnny," said Grandma, as she saw the last red slice disappear from Johnny's plate; "I think you like tomatoes."

"I do," said Johnny; "I like them raw, and stewed, and baked, and almost any way."

"Didn't you like tomatoes when you were little, Grandma?" Johnny asked. He saw Grandma looking down at her plate with a smile in her eyes.

"No," Grandma said, "but that was because I was a big girl before I ever tasted one. I never saw a tomato until I was thirteen years old.

"I can remember it so well. A peddler came by our farm once a month, bringing buttons and thread and such little things to sell. He brought the tomato seed to mother.

"He used to carry seeds and cuttings of plants from one farmer's wife to the next. They liked to see him come. He could tell all the news, too, from up the road and down.

"One spring morning he came. After mother had bought all she needed from his big, red wagon, he fed his horse. As he sat by the kitchen fire waiting for his dinner, he fumbled about in his pockets in search of something. Then he drew out a very small package and handed it to mother.

* By permission of *The Youth's Companion*

" 'I have brought you some love-apple seeds,' he said. 'I got them in the city; I gave my sister half and brought half to you.'

" 'Thank you, kindly,' mother said, as she looked at the little yellow seeds. 'I am very glad to get them. What kind of a plant is the love-apple?'

" 'Well,' said the peddler, 'the man who gave the seeds to me had his plants last year in a sunny fence corner. The flowers are small, but the fruit is bright red. It is very pretty among the dark green leaves. You can't eat the fruit, though—it may be poisonous. It is something new. The man who gave me the seeds got them from a captain of a ship from South America. They grow wild there.'

"So mother planted her love-apple seeds in a warm fence corner. They grew, and the little yellow blossoms came. After them came the pretty red fruit. We children would go out and look at it, and talk about it. We wondered if it would hurt us if we just tasted it.

"One day mother heard us talking about it, and she called us away. She told us that if we could not be satisfied to just look at the pretty red fruit, she would have to pull up the love-apple vines and throw them away. The peddler had said it might be poisonous.

"We knew she would be sorry to do that, for no one else about had any love-apples. So we kept away from the fence corner. The vine grew and blossomed, and the red showed in new places every day. The birds did not seem to be at all afraid of the fruit, but ate all they wanted of it.

"One day, in the early fall my uncle came from New York to make us a visit. When he went out in the garden he stopped in surprise. 'Why, Mary,' he said, 'what fine tomato vines you have! Where did you get them?' "

" 'We call them love-apples,' mother said. Then she told him how the peddler had brought the seed. But when my uncle found that we were afraid to eat them he laughed. He showed mother how to get some ready for supper

"That was my first taste of tomato, Johnny," Grandma said, "and you shall have some for supper fixed the same way—cut up with cream and sugar."

Where Cities are Located

Five rivers flow through the valley: the Potomac, Shenandoah, James, Roanoke, and New rivers. These rivers furnish water and power for the cities in the Valley. The rivers flow through broad, rich valleys where the cities are. This is the reason that the Valley cities can spread out.

You can see that whenever the city of Roanoke needs more room for its business and factories, it can spread out. Roanoke is called the "Magic City." The railroad decided to build shops where Roanoke now is. As soon as the railroad did this, many people came there to work. Then factories for making iron goods of many kinds were put up, and houses, stores, and bank buildings were built. In two years Roanoke grew to be a city. This is why it is called the "Magic City."

Our Trip Through the Valley

If we take a trip from Botetourt County to Frederick County, we will see interesting sights and many things going on. Nowhere is scenery more beautiful than in the mountains that border the Valley. There are

In the beautiful Valley of Virginia.

Through the Valley by train.

places where limestone is burnt for making cement. Here and there are sawmills and wood factories using oak, poplar, hickory, and pine logs. Over yonder is a tanning factory where hides and skins of animals are gotten ready to be made into leather. We get hides from our larger animals, — cattle and horses,—and skins from smaller animals,—sheep, goats, and hogs. With all of this going on, we know that there are plenty of railroads to do the hauling.

In nearly every county through which we pass there are mineral springs. Hotels have been built at these springs for those who come to drink the water.

Among the wonderful sights in this section of the valley are Natural Bridge, in Rockbridge County, and Luray Caverns, in Page County. You will read about these places later.

Let us now see what cities and towns we will visit. In Rockbridge County is Buena Vista, where we can see an iron furnace, a foundry, paper, lumber, and flour mills.

The next city is Lexington, where there are two colleges—the Virginia Military Institute and Washington and Lee Uni-

versity. The next city is Staunton, in Augusta County, where there are factories and where trade in flour is carried on. This is the birthplace of Woodrow Wilson. Nearby are Waynesboro and Basic City. In Rockingham County is Harrisonburg, where there is a State Normal School. In Shenandoah are the towns of New Market, Woodstock, and Strasburg. These are in the midst of a farming and fruit section.

In Page County is Luray; in Warren County, Front Royal; in Clarke County, Berryville; and in Frederick County, Middleton. Winchester is the center for trade in the northern part of the valley. Among its many factories is one for making vinegar.

In our trip through the valley from North Carolina to Roanoke, we will see the people mining, manufacturing, and raising stock. It is in this part of the valley, especially in the counties of Smyth, Wythe, and Pulaski, that cattle are raised to be sent to Europe and South America. All along we see fine horses, sheep, and cattle.

There are many iron furnaces from which iron is sent to factories, which make railroad and streetcar wheels and other things.

Out of marble, slate, and clay we will see people making many useful things. In Roanoke County, as well as in Botetourt County, we will find people work-

On our way through the Valley of Virginia

ing in canneries. Near Wytheville is a fish hatchery where our government raises fish to stock the streams here.

It is in Washington and Smyth Counties that we will find many people working in salt factories. We are told that the reason salt is found way up here is because the ocean once covered this section.

Let us see what towns and cities we will visit. Bristol, in Washington County, is on the Tennessee line. One part of Bristol is in Virginia; another part is in Tennessee. For this reason there are two post-offices. Letters addressed to a person in Bristol, Virginia, will go to the

A part of the City of Roanoke, showing the railroad.

Virginia post-office; one addressed to a person in Bristol, Tennessee, will go to the Tennessee office. Bristol is a coal center. There are many factories here,—flour mills, feed mills, and paper mills. In Abingdon there are also many factories. Marion is in the midst of a great grazing section. Near Rural Retreat many cabbages are raised. In Wytheville there are many beautiful homes. In Pulaski there are iron furnaces and other factories. In going from Pulaski to Christiansburg, in Montgomery County, we will pass Radford, where there is a State Normal School. Farther up is Roanoke, which is the end of our trip. Roanoke was once called "Big Lick" from the salt there which wild animals came many miles to get.

CHAPTER X.

IN THE APPALACHIAN MOUNTAINS

Long ago men went into the mountains to get away from some people who drove them from other parts of Virginia. This was when our Virginia was owned by England. A governor of Virginia whom the King of England sent over here to rule, drove these people away. They did not want to go to the mountains, but there was nowhere else for them to go. If they had not gone, they would have been killed by the terrible governor whose name was Dunmore.

A mountain road in Appalachia

Mountain trail in Appalachia.

The people found their way in the mountains by trails which animals and Indians had made. Now we find some of the best roads in the mountains and people do not have to use these trails any longer.

Once in the mountains, these people had to work very hard to make a living. They picked out places to build their houses.

Enough trees had to be cut down and enough ground cleared. Then the people went out to hunt and fish. There were fish in the mountain streams and birds, deer, and bears in the forests; but there were also wild cats and panthers to fight. The people had to have clothes and blankets to keep them warm. Like the Indians, they used skins of animals for clothes and blankets, and wore moccasins instead of shoes. After a long time, when they had killed and driven away bears and other wild animals, they were able to raise cows, sheep, and horses. From these domestic animals they got meat for food, wool for clothes, hides and skins for making many useful things. Out of hides and skins leather is made.

Thousands of people were living in Tidewater and Middle Virginia when only a few hundreds were in the mountains.

His friends

After awhile some people who lived down in Middle Virginia went into the mountains and told the people who had gone there that it was safe for them to come back; that the English did not own Virginia any more. George Washington had led his armies against the English and had run them away. Virginia

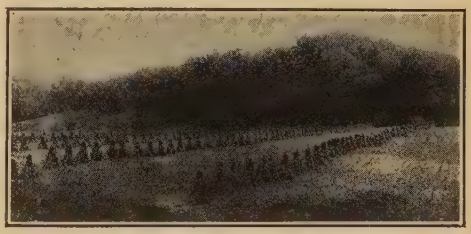
now belonged to them all. The people who had taken refuge in the mountains were glad to hear this, but many of them had learned to love the mountains so much that they would not leave. In fact, people from elsewhere came to join them, especially when they found that iron and coal were hidden in these mountains.

Mountain Farms

After many years the mountain people owned many good farms. These farms are not like those in Middle Virginia and in Tidewater. They are on the hillsides and in the valleys.

In the open places grass grows; in other places the ground is very rocky. Where there is no grass, trees, or bushes to hold the soil, rains wash down the hillsides. Mountain farmers have to plant strong things which will grow in the hard, rocky soil, and which can stand the cold weather. Cotton, and peanuts can not be grown, but corn, wheat, oats, and rye can be raised.

Sheep are being driven to town. See the farms we will pass on our way there.



A cornfield

Sheep and goats enjoy the pastures on the hills. Because goats eat almost everything, they keep the land cleared of bushes and underbrush and grass grows in their place.

Fine cattle are raised in Southwest Virginia. They too, enjoy the blue grass which grows wild on the hills and mountainsides.

The cattle in this section of our state are so fine that people in Europe buy them. In one year five thousand carloads or

ninety thousand cattle were sent away from this section. This brought twelve million dollars to those who raised them. These cattle can be sent to Newport News and Norfolk, loaded on steamships, and sent to Europe. It is the only section in the United States which ships cattle direct from the blue grass pastures to foreign places. This is a long ride for cows to take. Do you think you would like to take such a long trip?

On mountain farms everybody is needed to help harvest the crops. They do not have colored people to help them. All the people are white. When harvest time comes, the children help in the fields. They can not go to school and help on the farms,

Cattle in Highland County

Export cattle waiting to be loaded on railroad cars.

too. For this reason the school year is not so long as it is in cities where children do not have to leave school for the farm. Mountain children learn many things which city children do not. They learn how to raise hogs and corn, and to do many useful things about the farm.

Valleys, Railroads and Roads

There is plenty of rain in the mountains to supply the people, the crops, and live stock with water. There are two winding rivers which run through Southwest Virginia — the New River and the Clinch River. There are also many other smaller streams. The New River flows across the Alleghany mountains to the great Ohio River.

Along these and other river valleys many people now make

The best cattle in the world is found in this part of our state.

their homes. They also build factories and work in mines. In the seven counties along the Clinch River Valley, in Southwest Virginia, there are more than 200,000 people. Good roads have been built and many people are seen in automobiles and wagons carrying hogs, sheep, and vegetables to the growing towns.

How Products Get to Market

It is not easy to build railroads in the mountains. Since there are many valleys in the Appalachian section, railroads can be built more easily than if there were only a few valleys.

Railroads are not built in mountains unless there is something valuable for them to haul away. For a long time the people in our mountains did not raise enough crops to pay for railroads to be built. But when coal, iron, and other minerals were found, and mines were sunk in the

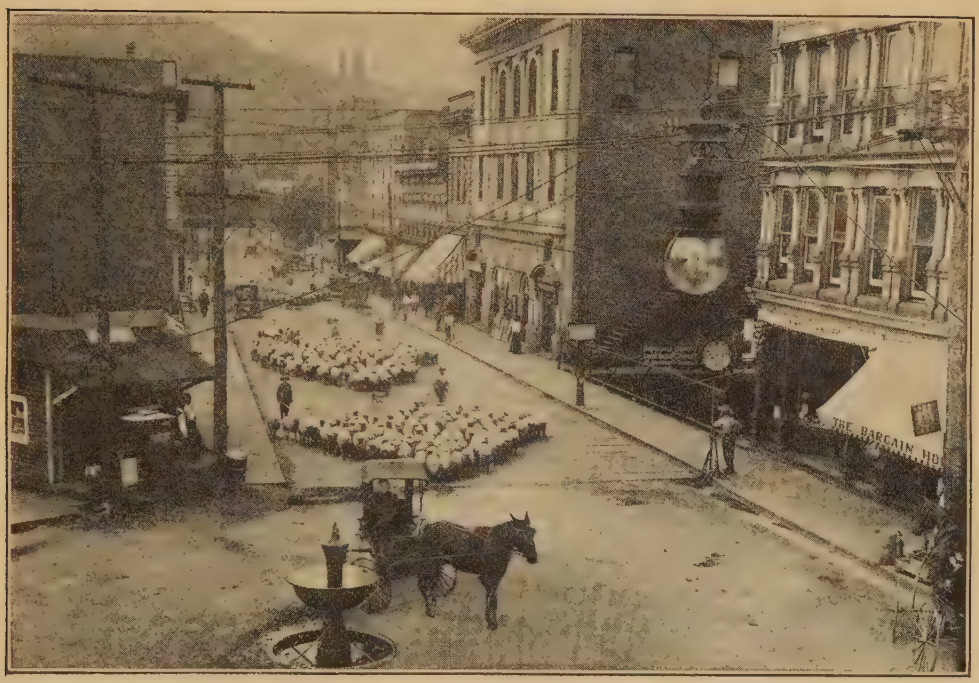
ground to get these, railroads were built. This section of our state is growing very fast because there are now railroads, good roads, and much mining. Then, too, there are fine farms to supply food.

Timber and Coal

After railroads came, many saw mills were also built. Now oak, poplar, hickory, and other hardwoods are cut into lumber at these mills and shipped away. The sparks from the smokestacks sometimes set dry brush afire and cause forest fires. These fires sometimes burn up thousands of valuable trees. But people are learning to be more careful.

The government owns many acres of forest lands in our Virginia mountains. Trees in these forests are not allowed to be cut

A fair in Tazewell County



To market

down. For many reasons the government wants to save them. When trees are cut down rains wash the soil away and ruin the land. If trees along the banks of a stream are cut down, the sun can dry up the stream. It takes a long time for a tree to grow. If they are cut down faster than they grow, there would soon be no trees left. For these reasons the government owns 280,000 acres of forests in Virginia.

Much coal lies buried in the mountains of Virginia. The coal fields cover 1,750 square miles. From the coal mines in these fields enough coal is gotten every year to supply five tons to every man, woman, and child in Virginia. The best coal found in our state is called "Pocahontas." After coal is mined it is loaded on trains and hauled to cities and factories. Thousands of tons are seen on long freight trains which

are headed for Newport News and Norfolk.

The Story of a Lump of Coal *

Eric and Errol sat by the fire toasting their toes. For a moment they were silent, and then Errol spoke.

"Eric," she said slowly, "I wonder what coal is, and how it is made. Do you know?"

"No," answered Eric, "but I know it is good to warm by, and that sometimes it has pretty pictures in its coals. Look at that lump yonder—I declare, if it isn't a man!"

Errol peeped. "It certainly is!" she exclaimed. "Arms, legs, and everything!"

Eric continued excitedly: "And that little line across his face—that is his mouth! See it moving! I can almost hear it speak!"

"I can, too!" cried Errol.

And just then—would you believe it?—a thin raspy little voice did fall on the air. It said:

"The air fed me,
The sun warmed me,
The waters offered me a bed,
The rocks covered me,
The gases kissed me,
And I slept—
Hundreds of years went by—
then

"A rude jar awoke me,
A rough machine broke me,
I was torn from my home,
And turned to a flame!
And now that I'm here,
Pray, what's my name?
Guess!"

Eric and Errol looked all about them; then they rubbed their eyes and gazed at each other. "Are we dreaming," they cried, "or did somebody speak?"

"I spoke," rasped the coal man again. "I said—but wait until I get more comfortable!" — and with a creak and a crackle, he slid down to the hearth. His head, arms, and legs seemed made of white ashes which the red flame had left on him. Once down he flipped his coat tails, straightened his vest, tried his legs, and began:

"Yes, I spoke. I was asking about my name. Can you guess it?"

"Why, of course. You are a lump of coal," answered the chil-

* Author, Alleine Fridy. Adapted and used by permission.

dren. "Anybody can see that; but what funny things you say about yourself. What do you mean?"

"Why, just what I said," replied the lump of coal. "Don't you know anything about me? Well, once I wasn't coal at all. I was a forest."

"A forest!"

"Yes, a forest; but that was thousands of years ago. Then, after I had stood so for a long, long while, I fell into a swamp, was pushed down into its mud and sand, where pressure and heat finally turned me to coal. I slept hundreds of years before man came along and found me.

"One day, however, a terrible jar shook me, and I did not know anything for a long time. When I did come to my senses, my home had changed. I was still

Miners ready to go down in a coal mine.

in my bed, but things around me were different. Instead of being in the quiet country place in which I had been born, I was now in what seemed to be a city under the earth. North, south, east, and west of me there stretched long, black tunnel avenues, each three or four miles long and dimly lighted by electric bulbs. Through each avenue there was a track on which tiny cars were drawn by mules. There were cross streets, too, cut into the main avenues, and opening from the cross streets were small rooms."

" 'What strange place is this?' I cried in confusion when I first saw it all. 'Where AM I?"

" 'In a mine, as men call it,' replied a rock that was just above me.

" 'Bang!' want a dull thud just then. It seemed to come from the front end of a tunnel that was near by.

" 'And what is that noise?' I asked again.

" 'Men are coming into the mine,' the rock answered.

" 'But how do they get down here?'

" 'You will find out,' said the rock. 'Keep your eyes open now and see for yourself.' And he would speak no more.

"I did find out—and soon. Just then several miners, followed by other workmen, came into my part of the mine. They had picks in their hands and other queer tools. They hurried down the tunnel and into the dark little room where I was. As soon as they were inside, they raised their strange picks and brought them down pick, pock! pick, pock! right on the bed where I lay. The men had tiny lamps in their caps, so that they might see exactly where to aim their blows. Whack, whack, went the picks, and great pieces of black rock around me broke and fell. For hours they hewed away, loosening the coal, and then one of the miners said to the other: 'We shall never get enough this way, Czacho; let's blast.'

"So they drilled a small hole in the wall right by me, pushed a cartridge of black powder far back into it, and lit a fuse which they had put there. Then they shouted the warning, 'Fire! fire!'

and ran to the gangway for safety. The shell burst, there was a puff of air, a dull roar, and a cloud of fine dust flew everywhere. I felt myself going somewhere, and before I knew it I was burrowing head foremost in a heap of coal already on the floor of the tunnel.

"For a moment I was dazed, and my side ached with a broken feeling. All at once I felt myself hurling swiftly through the air again. Somebody was tossing me to a car of coal that stood near. When I landed, there was a push, and the car went rolling out into the darkness to where a driver boy stood with his mule, a patient, blind old thing that was waiting to pull the car on out to the strange, dark hole that led up to daylight. This hole was the shaft or entrance to the mine from the world above.

"Down through the shaft I saw a queer wire basket come scuttling toward the foot of the mine. It dropped through the deep, dark way, like a bucket down a well, and finally landed with a thud that set the echoes rumbling through the hollow cavern about. A man got out of the cage and went his way.

"And just then, from somewhere behind me, a voice shouted: 'Clear the way! Clear the way, pals, the coal is coming into the carriage!' There was a tilt of the car, a slide, a rush of coal, and the whole dump fell pell-mell into the basket. The ropes swished, the chains clanked, and the dirty 'carriage' rose slowly up to the bright, clean world above.

"Up there I was hoisted on to a tall, black 'breaker' near the mouth of the mine, and dumped into its huge cylinders, where I was ground and crushed, only to be dropped out on the ground later in a heap for hauling.

"The next thing I knew I was in your town, and here in your home. Now that I am, will you agree with me that I said truly,

" 'A rude jar awoke me,
A rough machine broke me,
I was torn from my home,
And turned to a flame!
And now that I'm here,
Pray, what's my name?

"What? 'Lump of coal,' you

say? No, KING Coal! King in power, I rule the world. GIANT Coal! Giant in strength, I support you. I dye your dresses and ribbons in beautiful colors; I light your homes with gas; I turn the wheels of your great factories; I whirl your rushing trains across the country; I drive your great steamers over the sea; and I build your great manufacturing cities! I am really the 'spirit of all work.'

"Now you know me—whence I came, what I am, what I do. Let me go back to my business of cheering the world."

And so saying, he swung about, climbed into the grate again, and laid himself down on the live coals once more. His coat tails shortened, his vest crumpled, his arms and legs dwindled away. For a moment the thin, white line across his face broadened into a smile, then presently gave way to the tune:

"Tra-la! tra-la! tra-li-la!
I was torn from my home
And turned to a flame!
Tra-li-la! Good-by."

Then all was silence. Sharp tongues of flame licked out all over his body. It separated, and he became a bed of red coals fringed with white ashes.

"He is gone!" whispered the children who watched. "I wish he might have stayed."

Then Errol turned to Eric. "Do you suppose there really has been a little King Coal talking to us," she asked rubbing her eyes, "or have we been dreaming?"

"I don't know," answered Eric, "but this I do know; that was a mighty fine story he told us; wasn't it?"

Other Minerals

More coal than iron is mined in Virginia, but there are only six states which produce more iron than does Virginia. From Craig County came the iron with which the Tredegar Iron Works in Richmond made cannon for the Confederate Armies.

Soapstone is another mineral that is found in the Virginia mountains. From this, washtubs, are made. Many other kinds of valuable minerals are found in our mountains.

People dig salt from the mountains and send it to factories

A factory which uses the iron ore when it is dug from the ground.

where it is cleaned and made into many useful things. Marble, granite, and other stones are also found in our mountains.

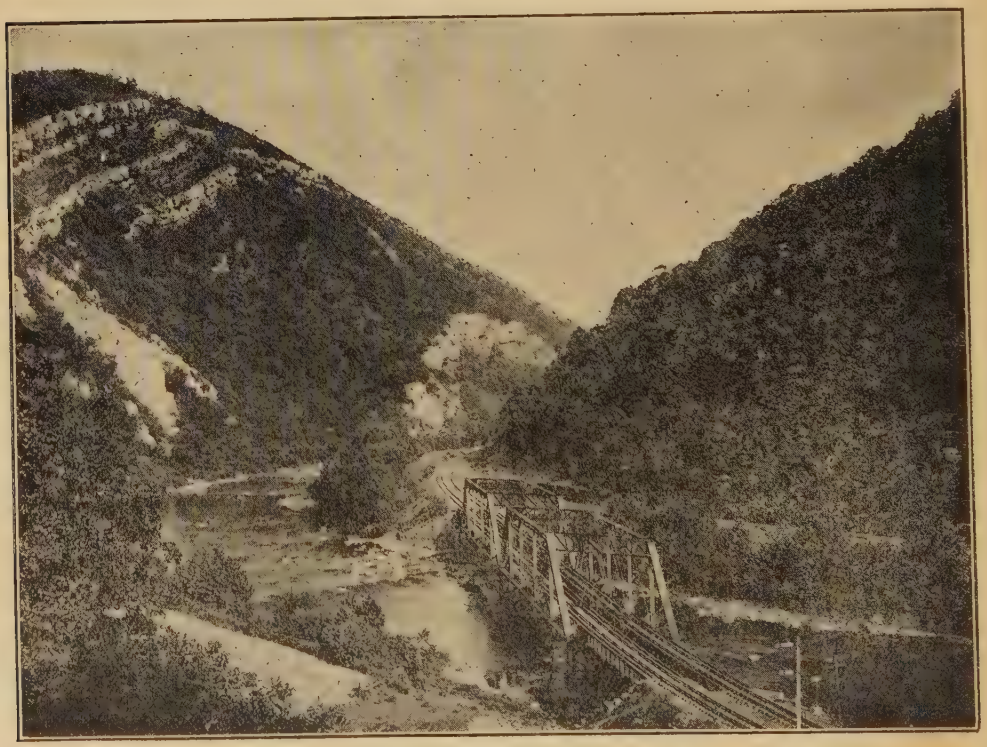
Natural Tunnel, in Scott County, is an amazing sight. This tunnel "just came" through the mountain. It has been there for thousands of years. Daniel Boone used it; buffaloes and other wild animals used to rush through it. A railroad now runs through this tunnel. In our mountains there are many health resorts and mineral springs. Close to Hot Springs, which is the best known, are Warm Springs and Bath Alum.

Towns and Cities

There are no large cities in the Appalachian region of Virginia. Clifton Forge, in Alleghany County, is on the main line of the Chesapeake and Ohio railroad. There are a number of factories at Clifton Forge. Covington, in the same county, is in the midst of mines, timber, and farms. Much trade is carried on there. At Tazewell, in Tazewell County, there are a packing house, lumber plant, an ice plant, power plant, mills, and a lime company. Pocahontas is in the midst of the coal fields. In Wise and Lee Counties there are mining towns because coal and iron are found here. In Dickenson and Buchanan counties there are also mining towns because much coal is found here. Dante, in Russell County, is a mining town. At Saltville in Smyth County, there are factories for making baking soda and wall plaster.

The Blue Ridge

In the Blue Ridge Mountains there are high peaks. On the mountainsides there are forests and good grazing lands. On the sunny slopes apples and fruits are raised. The climate is so healthful and the scenery so beautiful, that there are many health and summer resorts. In the southern part, the Blue Ridge spreads out. Here are the counties of Floyd, Carroll and Grayson where iron, lead, soapstone and other useful minerals are found. Here also is the highest mountain in our state,—Mount Rodgers.



From Virginia into West Virginia, on the Chesapeake & Ohio Railroad.

CHAPTER XI.

SOME FOES THAT HINDER US

Have you ever had the pink eye? If so, this was caused by a very little fly which bit and poisoned you. Mosquitoes buzz around in the air near where stagnant water stands. Stagnant water breeds insects. There is a great deal of stagnant water in holes and swamps in Tidewater Virginia, because the land is so level and flat. The bites of some mosquitoes may cause malarial fever.

The common house fly is a filthy insect. We have learned that he is dangerous, so we have put screens to our windows and doors to keep him out of our houses. There was a time when milk buckets were not protected from flies and dirt. But doctors told us that unless flies were kept away from milk we might get typhoid fever.

None of us like to get stung by a honey-bee, so we keep away from them. Honey-bees feed on honey-bearing plants like honeysuckle. These plants bloom during the summer. Since our summers are long in Virginia and our winters mild, Virginia bees are busy making honey most of the year. The comb is made of beeswax. Both honey and beeswax are valuable.

Before trees, bushes, and wildflowers were cut down to make way for fields of corn, potatoes, and wheat, many kinds of insects made their home in the forests and in the woods. They got their food from these growing things, and they lived on them. When man cut down their homes and took away their food, what were the insects to do? They must learn to eat what the farmers planted in the fields. Worms and small insects sought the tobacco plants and vegetables. Bugs looked for and found their homes in potatoes, cabbages, and onions. Caterpillars, which once fed on

the leaves of trees in forests, took up their homes on shade trees and fruit trees. The "June-bug" makes his meals on fruits. Apple, tobacco, and peach worms, together with other pests, kill much fruit. Their homes have been taken away from them, so they must have somewhere to live.

Some insects take long trips on boats and trains. If they like their new home, they will raise their families there. Out in our wheat fields there are flies called Hessian flies which eat up much of our wheat. These flies came all the way across the Atlantic Ocean from Europe. Some insects from Mexico have also come to make their homes with us. The chinch bug likes to eat our corn, and the boll weevil is looking for our cotton. A moth, called the scale, lives on apple trees and kills them. There are three hundred different kinds of insects that may eat and kill our fruit and fruit trees.

Insects eat the leaves of forest trees and bore holes into the trees. This makes trees weak and keeps them from growing tall and strong. Beetles eat wasps and birds eat beetles. When birds die in the forest, other beetles may come along and bury them. The remains of the birds help to make the ground rich so that trees can grow for other insects to eat.

Dairymen and cattle raisers find that insects eat hides of cattle. Some insects feed on horses and sheep. Other kinds of very, very small insects make cattle, horses, hogs, and sheep sick. Sometimes all of a farmer's hogs die from disease, just like thousands of people die from "flu." These deaths are caused by tiny animals.

When people first went into the forests of Virginia, they had to fight wild cats, panthers, and bears. They killed deer, geese, and quail; but these are now very scarce. Men now go hunting for them, but they are almost gone. Very few bears are left. Some are in the Dismal Swamp, and a few may be found in the mountains. Instead of wild animals to fight, Virginians now have to fight tiny animals and insects. They have to find

out what to use to kill each kind. Some things will kill one kind of insect and some another. Men spray fruit trees with poison. We know what to do to fight against these animals because there are scientists who work very hard to find out.

Animals, like toads, frogs, snakes, and birds, help in killing insects. Toads eat worms, insects, and snails. Birds and snakes kill thousands of insects.

How Insects Help

There are some insects that we do not want to kill. We want just as many of them as we can get, because they help to make the crops and fruit trees grow. We owe nearly all our fruit trees to insects because they spread seed. All our beautiful flowers seem to have been caused by insects which carried the seed of one flower to another flower. Then the seeds of both flowers grew up together and made another kind of flower. Insects destroy hay, but we would have no clover were it not for them. We could not live if it were not for insects in the ground to keep tumbling the earth and dying. In tumbling the earth they let the air into the ground and when they die they help to make the soil richer.

The Fighters

Farmers and fruit growers are not the only people who have to fight tiny animals. People in cities have to fight against tiny animals called MICROBES. The people are so busy working in factories, in stores, and in other places that they elect a mayor and councilmen to protect them from microbes. The mayor and councilmen appoint doctors and engineers to fight against microbes. Doctors and engineers have been to a college or university, like the University of Virginia. This is where they learned about the habits of tiny animals and how to fight and kill them.

Unless the water we drink is pure, it will make us sick. When water is unfit to drink, it is full of microbes. Stagnant water and water which has sewage in it may cause typhoid fever. People who live in our cities expect the doctors and engineers in charge of the water supply to furnish pure water.

Milk spoils very quickly. This is because microbes grow very rapidly in it. So officers in charge of the milk supply have to be very careful about our milk. They even go to the dairy farms to see if the cows and stables are kept clean. They see that milk is pasteurized in our city plants, and that it is kept clean. Officers who look after the milk supply have to be very careful.

Measles, diphtheria, scarlet fever, and other diseases are caused by microbes. People in cities are so crowded that such diseases are easily spread. The health officers of our cities do all they can to keep people from "catching" such diseases. This keeps these officers busy.

Vegetables and meat which are sold in our markets also spoil easily. Microbes cause this, too. There are officers who go about the city markets to see that the food supply is fresh and clean. If this were not done, many people would die from being poisoned.

The state also appoints officers to help fight against tiny animals and to protect the people. These officers go out to the dairy farms and examine the cattle and stables. If they find that cows have tuberculosis or some other disease, they may have the cows killed. If they find the stables dirty, the farmer may have to pay a fine. These state officers also examine hogs and other animals to see if they are healthy. All this is done to protect people —to keep them from being sick, from drinking impure milk or eating diseased meat.

The federal government in Washington also sends officers to Virginia to help in giving our people pure food and to help in fighting disease. In our cities there are packing houses where cattle, hogs, and sheep are killed and made into beef, hams, and mutton. Government officers are sent to these plants to see that everything is done right. These officers are called inspectors. They see that the plant is kept clean and that the animals are properly killed. They also look after many other things. If the meat is impure they will make the company throw it away.

The federal government also

keeps officers at Norfolk to inspect ships which come from other countries. You remember that we learned that insects and microbes do a lot of traveling. One of their favorite ways to travel is on boats in the food and fruit which comes from South America, Europe, and other countries. They travel in the fur of rats and on the hides of animals. These officers inspect the boats and see that everything is all right before the boats are allowed to land at the docks.

Farmers, city officers, state officers, and federal officers have to fight against insects, pests, and microbes, or tiny animals. The best way to learn how to fight against these enemies is to go to college. The state is anxious for its people to learn these things so they build colleges to which young men and women may go to learn how to protect their crops, themselves, and other people.

Up the river by Norfolk and Western Railroad

CHAPTER XII.

NATURE'S GIFTS TO VIRGINIA

What the Ocean Gives to Virginia

The big ocean which washes the eastern shores of our state does a great deal for us. The corn and wheat which grow way up in the Valley of Virginia get water from the ocean.

The old and new lighthouses at Cape Henry.

The cattle which graze on our hills drink water which comes from the ocean. Rivers flow down to the sea and furnish it with water. The sun draws up water from the ocean and clouds are made. The winds carry clouds over our land. When these clouds meet colder clouds, it rains. This happens often in Virginia. That is the reason we have such plentiful rainfall and so much water for our stock, for our plants and trees, and for ourselves.

The Atlantic Ocean helps to give Virginia her fine climate. Out in this ocean there is a warm current of water which is called the Gulf Stream. The winds which blow over this stream are warmed by it. Then they blow across the state, even to the mountains, That is one reason why the winters in Virginia are so mild.

The Atlantic Ocean helps to keep the people of Virginia healthy. It makes changes in temperature. Every day is not exactly alike. There are some

places in the world where cold spells last a long time, or when it rains for weeks and weeks without stopping. People get very tired of this kind of climate. Children in Virginia do not have to say very often, "Rain, rain, go away! Little Johnny wants to play." Sunshine follows rain, and rain follows sunshine. The ocean helps to cause these changes.

The seashore is a beautiful place and people enjoy going there. In the summer, thousands of people go to the seashore for boating, bathing, and fishing. This is good for them. Virginia's seashore is helpful, because working people can get rest and health there; young and old alike can have a good time.

The ocean also furnishes Virginia with much food. Oysters, fish, crabs, shrimp, and clams are caught in the waters of Tidewater Virginia.

In only one way does the ocean fail to help us. During hot spells in summer the dampness from the sea sometimes makes the heat harder to bear. This is what causes sunstroke. But sunstroke does not happen very often. Sometimes we say that we "feel the heat" so much. This is because there is so much dampness in the air.

The ocean also sends great vessels to our coast and carries our vessels across to foreign countries and to other places in the United States. In this way the ocean helps Virginia to get a market for her raw products and her manufactures.

There are five ways in which the Atlantic Ocean helps Virginia. It gives water for clouds and rain; it makes the temperature change; it helps people to be healthy; it furnishes food; and it helps commerce.

Matthew Fontaine Maury

It was a great Virginian named Matthew Fontaine Maury who first showed the world how the ocean could help in other ways than just carrying ships. He was able to do this because he was the first man who made a map of the ocean. He showed people that mountains and valleys were on the bottom of the ocean and many other things about the

ocean which people did not know.

Have you ever thought how we have been sending quick messages across the ocean? On land we can telegraph or telephone; but it is too far across the ocean to telephone. So many wires are put into a cable, and this is laid on the bottom of the ocean. Then messages are sent across the ocean along these wires. When this sort of message is sent, it is called a cablegram. During the World War we learned of what was going on in Europe very quickly because the news was sent by cablegrams.

At one time men tried to lay such a cable along the bottom of the ocean, but they did not succeed. When Maury made his map of the ocean and taught people about it, they were able to lay a cable along the paths which Maury showed them. For this reason, he is called the "Pathfinder of the Seas."

Maury also started the weather bureau at Washington. You will soon read of how important weather bureaus are to us.

Maury asked that, after he died, his body be kept at Lexington until the mountain ivy and rhododendron were in bloom in Goshen pass. Then he wanted his body to be carried through the pass and some of these beautiful flowers which he loved, placed on his coffin. This was done.

The tomb of this great man is in Hollywood Cemetery, on the James River at Richmond. On it is written, "All is well."

The Longest of Virginia's Rivers

Let us take a trip up the James River, which is Virginia's longest river. It flows hundreds of miles before it reaches the Chesapeake Bay. When we leave Hampton Roads and go up the mouth of the James River we find it very wide. Large boats may be anchored in the river. We can travel up this river in a large boat or in a small one. Sometimes the tide will be going with us, sometimes against us. The water is salty way up the river.

How does the water become salty? Drops of water pick up

Jamestown Island as it is today.

out of the ground here and there tiny bits of salt.

Salt melts in water. Then the water takes this salt down the river. When the river gets wide and runs very slowly, the summer sun cooks the water and draws it up into the sky. But the salt is too heavy to go up in the sky with the water, so it is left. In this way thousands of little pieces of salt are left. After many, many years, all the water gets salty.

The water at Jamestown Island is salty. Jamestown Island is where Captain John Smith and some Englishmen landed in 1607, and made the first English settlement in our country. On this island is a beautiful statue of Pocahontas, who once saved the life of Captain John Smith.

Along the banks of the James

River there are many beautiful homes. Some of them are the oldest in the United States.

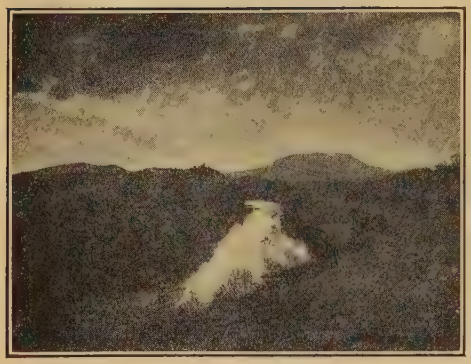
There are also many fine, rich farms along the river. Beyond Jamestown Island, in Middle Virginia, they do not raise peanuts and cotton, but they do raise vegetables, alfalfa, corn, and tobacco. Because hogs and dairy cattle have plenty to eat, they are also raised. Milk and butter from the dairy farms are sent to Richmond and other cities.

As we go up the river it is narrow, but the water is quite deep enough for large boats. All along the river, to the right and to the left, piers are built out into the water. Boats land at these piers and put off clothes, canned goods, and other things. They take away the farm products to other places.

Lighthouses and buoys in the river warn us of danger from shallow water or rocks.

One of the places we pass is called City Point. Near here the government bought, during the World War, munitions from the factories of the DuPont Powder Company at Hopewell. So much munitions were needed in so short a time that thousands of people were rushed to these factories. which had been built very quickly, but there were no houses for the people to live in. What were they to do? There was no time to build brick and concrete houses, so houses which could be built very quickly were erected. Some of these houses were made of pasteboard, or "beaver board." Such houses were covered with roofing paper or some similar material. The population of the town which thus grew up so quickly came to be about 40,000 people—one of the largest cities in Virginia for about two years. As soon as the war was over, the people had no work to do, so they left; and now there is just a town where once a city was.

Such a city as this is called a "mushroom" city, because it goes up so quickly and does not last long. Many such cities of just this kind grew up in the United States in places where gold, silver, and oil were suddenly found; but this is the only one



Streams which feed rivers and quench thirst.

Virginia has seen on her own soil.

When we get near Richmond we see large factories, which line the banks of the rivers and in which hundreds of different things are made.

In our boat, we can go no further than Richmond, because the river is shallow and full of rocks. We must now take up our trip by train, which will carry us far up the river.

Way up the river there are many little brooks and streams which bring water to feed the river. If we follow one of these streams, we will see it dancing into and through the valleys. Hundreds of these streams flow into the James River.

The James River cuts through the Blue Ridge mountains and falls over the rocks. One of the places where the river does this is known as Balcony Falls. Sometimes the streams are dammed so that they will run fast over the dams. Falls and dams are used

How water is made to give us power.

to make water furnish power to run factories. When water is made to do this it is called "white coal."

Mineral Water

We have seen that there are many mineral springs in all sec-

tions of our state. The reason for this is that there is plenty of rain and rock basins down in the ground to hold the water. When the water sinks into the ground it gathers tiny bits of minerals like lithia, iron, and sulphur. Iron and sulphur are good for the blood. You may know that iron is in turnip-greens and spinach. It is also put in some medicines. Springs which contain these minerals are healthy for people. Many sick people go to these springs and drink the water for their health. The water is also put up in bottles and shipped to people who can not go to the mineral springs.

Each year enough mineral water is shipped from Virginia to supply four gallons to every man, woman, and child in our state. If the money received for this each year were divided among all the the people of Virginia, every one would get seven dollars apiece.

What the Mountains do for Virginia

In the mountains, the rivers wind around first one mountain and then another. In their winding, they are joined by first one stream and then another. But the rivers can not flow through mountains. They must go around them. That is one reason why rivers are so crooked.

Captain John Smith or Pocahontas may have looked through these trees, for this is the river from Jamestown Island.

Streams which flow into rivers work down the sides of mountains and hills. When it rains in the mountains, dirt is washed down the mountain. This dirt and mud help to form the banks of rivers and help to make valleys rich. This means that the

On the mountainside

dirt or soil in valleys is the sort on which many kinds of plants and trees grow. That is why so many beautiful wild flowers and trees are seen growing along river banks.

People who were looking for rich soil soon found these rich valleys. These were the first places that were settled. The people cut down trees, bushes, and wild plants to clear the ground for planting crops. On these fields they planted corn, wheat, potatoes, and grasses. Even the wild grass which grows on the hillsides is good for food for cattle and sheep.

Our people built mills along the banks of the rushing streams. These mills were used to grind wheat into flour, and corn into meal. They made large wheels, which held many paddles, over which the water ran. This turned the wheels, which, in turn, ground the wheat or corn.

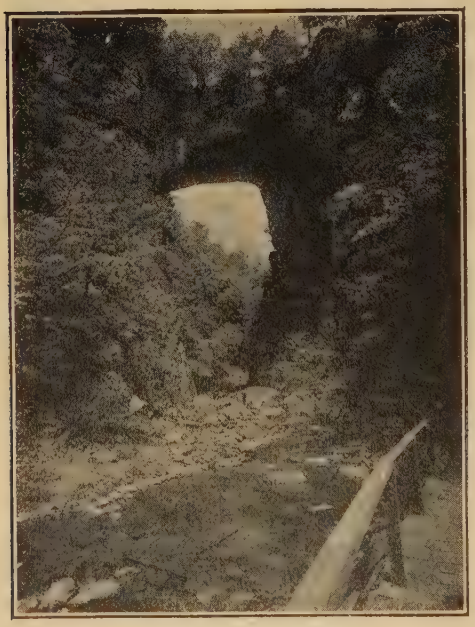
Later on, it was decided to build mills for making other things than flour or meal. Mighty rivers were dammed so that the rushing water could turn wheels for making many different kinds of things to eat and to wear. So factories were built and filled with machinery. Around the factories cities grew.

The further we go up a river the smaller it gets. After awhile we will come to a place where the river itself is nothing more than a little brook. This is where the river starts. It is called its "source." So you see that the mountains help to give us our rivers.

The mountains make the air cool and help to make it rain all over the state by sending out cool air to meet the warm clouds which are blown from the ocean. The mountains reach up for the snow and rain, and let the water run down their sides. Water is one of the most useful things we have. Because Virginia has so much water, it is blessed. Water is used not only to turn the wheels of the machinery in mills and factories, but also to quench the thirst of cattle and other animals. In the cities and towns water is sometimes used to make electricity to light the houses. Drinking water is also needed in

How water is made to run mills.

homes in the city and in the country. For this purpose cities and towns in the mountains run large pipes from the mountain streams. Down in Tidewater Virginia there are no streams like these, but there are lakes. So the people pump the water from the lakes to the towns and cities. In Middle Virginia, the people in cities get their water from rivers and streams. The water supply of a city must also furnish water for the fire department.



Natural Bridge

Natural Bridge

Streams which run down the sides of mountains and hills are looking for a river or a lake. As they run along, large masses of rock are sometimes in the way. Long, long ago, a large mass of these rocks lay in the way of a mountain stream. For many years the rushing water flowed against these rocks. These rocks were softer at the bottom than they were at the top. The water washed them away at the bottom, and the stream got through. But it never did wash away the hard rocks at the top. These hard rocks that are left now look like a bridge. It is called Natural Bridge, and is one of the wonders of the world. It is located in Rockbridge County, fourteen miles from Lexington. It took thousands of years for the water and wind to make this wonderful bridge.

Luray Caverns

We know that a drop of water can carry tiny bits of salt in it for a long distance. Drops of water can also carry tiny bits of limestone, and even gold. But

they can not carry a tiny bit of limestone or gold very far. When one drop which is carrying a tiny bit of limestone meets another drop of water which is doing the same thing, they seem to agree to give up the limestone. When this happens, the limestone bits stick together like long-lost brothers.

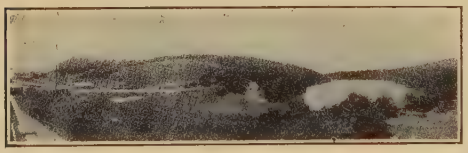
There are many caves in our Virginia mountains. Where these caves are, there is much limestone in the ground. The Luray Caverns are many caves together. Drops of water above these caves sink into the ground and trickle through the top of the caves. These drops of water carry little bits of limestone which they have picked up on their way. When the drops of

One part of Luray Caverns

water meet at the roof of the caves they leave their limestone bits with other limestone bits, which cling together. Then the water drops to the floor of the cave and makes pools or lakes. For many, many years this has been going on until now there are left hanging down from the roof limestone pieces shaped very much like icicles.

Mountain Lake

Way up on a mountain in Giles County there is a beautiful lake called Mountain Lake. The water in this lake is so clear that



Mountain Lake

boats sailing over it pass over the trunks and tops of trees which can be plainly seen by those in the boats. People think that a part of the mountain once sank down into the earth and the mountain streams filled the huge hole that was left. This lake is so beautiful that many people go there in the summer to enjoy bathing and boating. This is a mountain summer resort.

If Virginia were all level land, water would stand where it rains. Our state would be damp and not fit to live in. There would be no rivers. We would not have our wonderful Natural Bridge, our beautiful Luray Caverns, and our waterfalls.

The water from the mountains has made the plains, lowlands, and valleys fair and rich. The singing brooks, the running streams, the beautiful flowers, the growing trees, the ripe fields are all the gifts of our mountains. Factories by the sides of rushing streams, villages and towns, growing cities, and thousands of homes are the gifts of the hills. Plants which nestle in the rocks, pastures filled with cattle, forests which bear timber for shipping, and minerals and metals which hide under the earth are also the gifts of our mountains.

What the Air Does for Virginia

You have read of how cold it is way up north where the Eskimos live. You have also read

how cold it is up in the mountains of Switzerland. Ice and snow stay on the ground all the year in the far north and on high mountains. Very little grows in these places because so much ice and snow kills the plants.

In the highest mountains in Virginia you will not find ice and snow except in the middle of winter. In the summer time, when it is very warm in Tidewater Virginia, it is cool enough in the mountains for the people to sleep under blankets at night.

You have seen that the same things do not grow on the farms in Middle Virginia and in Tidewater Virginia. Peanuts do not grow on the hills or in the mountains. Cotton also, does not grow in the mountains. Tobacco is tougher than cotton. This means that it can stand much colder weather than cotton. On the other hand, too much rainy and hot weather may kill wheat and corn, while cotton will thrive.

Different kinds of plants need different kinds of air to help them grow. Some need hot and moist air, others need cool air, with little rain. Whatever air is needed by plants which are raised on farms, the land must be plowed to let it get into the soil.

Plowing with a tractor.

People who work in mines, factories, and offices in cities have to be fed. They do not raise what they eat. They expect the farmers to raise their food for them. There are many large cities in Virginia and some not in our state, but near us, like New York, Philadelphia, Baltimore, and Washington. Millions of people who live in cities need vegetables, milk, meat, and bread. Our farmers are able to supply people with all of these things.

Vegetables grow first down in Tidewater Virginia. When the air is first warmed from the sum-

mer sun in Tidewater, it is cooler in other sections. When the people in Norfolk are getting vegetables which are being raised around that city, the farmers in the mountains will not gather vegetables until much later.

Cabbages grown in Tidewater in June—early cabbages — are shipped to colder sections.

People who live in cities may not worry when it does not rain, or when it is dry, or when it is hot or cold. But the farmer wants enough sunshine and rain to make his crops grow. If a frost comes it may kill his apple trees. If too much rain falls, it may ruin his cotton. If a long, dry spell of weather comes, it may burn up his tobacco.

Before the planting season, the farmer gets his ground ready. He plows it so that the air may get down into it. When seeds are planted they will sprout if the ground is ready for them, and grow if the weather is right.

The Weather Bureau

We get a report every day about the weather. These reports are sent from the weather bureau of the government. In all sections of Virginia there are weather bureaus. They send out warnings when a killing frost is coming. If they think that a heavy rain or a dry spell is coming, they will tell farmers about this. Each weather bureau keeps a record of the weather. You can go to a weather bureau and find

Cabbages grow in the mountains in August — late cabbages. They are shipped to warmer sections.

out what kind of day it was on each day of every year for years back — whether there was rain, fog, snow or sleet, and whether it was hot or cold.

The Story the Waves Told

"Doesn't the river seem happy," said Ethel to Robert, as the two children sat on the beach and watched the little waves. Robert gazed across the wide mouth of the river before he spoke.

"It certainly does," he answered.

Swish, swish, swish, went the little waves as they lapped the sand on the beach.

"I do believe the waves are talking!" cried Ethel. "They sound just like they are saying something."

"We are, we are, we are," said the waves. "If you will listen, we will tell you a wonderful story."

"We will listen!" cried both children together. "Do tell us!"

"All right," said the waves. "We have travelled a long distance and are quite out of breath. But all of us together, we are sure, can tell you the whole story."

"Not long ago we were up in the mountains. But we were not waves then; we were rain drops. After we had fallen from the clouds we went rushing down the side of a giant mountain. On our way we heard the thundering voices of the mountains as they talked to one another.

"One mountain, named Chimney Rock, was saying to another mountain, named Eagles' Nest: 'Do you remember ever hearing of old Round Knob?' 'No,' replied Eagles' Nest. 'What is the story?'

" 'Well, old Round Knob once lived with other giants down where the rivers now are. One day he and his companions began a game of tenpins. They used as balls huge boulders, and the tenpins were the trees. As they played, the trees fell before the boulders by the thousands.

" 'The sun became very angry because he liked to warm the trees and to talk to them. So he called upon the clouds to help him to punish Round Knob and his companions for destroying

the trees. He told the clouds that they must drench the mountains; he told his cousin, Heat-under-the-earth, that he must help him punish the mountains. He also called upon the lightning and the wind. They all promised to help him.

"'We must run these bad mountains away!' said the sun.

"'Where shall we run them?' asked the clouds.

"'Down into the ocean,' replied the sun.

"So one day, thousands of years ago, the sun, the clouds, the heat under the earth, and the wind commenced to punish Round Knob and his companions. The rain came down in torrents and commenced to wash away the tops and sides of the mountains. The lightning crashed against the rocks. The heat under the earth pushed and pushed; the wind blew and blew.

"'After many, many years of such punishment, the mountains became terrified. They ran off to live with the ocean. The ocean was glad to see them, because they brought food with them for his fish.

"'Finally, the sun, the clouds, the heat under the earth, the lightning, and the wind stopped their punishment. They found that Round Knob and his companions had fled and left behind them some hills, islands, and peninsulas.

"'The ocean, however, was curious to find out what it looked like up where the mountains had come from. So he sent for his messenger, salt water, and told him to go find the best way for him to get there. Salt water set out with a rush up the rivers, and drowned their mouths as he went. Salt water is still trying to get where the mountains came from, but he hasn't yet gotten any further than the falls.'

"You children and all you folks in Virginia should be very glad that the ocean is trying to do this, because he has made wide and deep rivers for your boats, places to catch fish and oysters, and a fine harbor for your commerce.

"Good-bye. We are now going down to the ocean with the tide."

"When are you coming back?"

asked the children.

"It will be a long time," said the waves. "We may stay with the ocean; but after awhile we are sure that the sun will take us up to the clouds. Then the wind will take us back up to the mountains where we were some time ago. These mountains are very happy giants; and instead of destroying trees by playing tenpins, they play merrily with the trees day by day. So do the sun, the clouds, and the wind.

"Good-bye, children!" cried the waves. "We really must be going now. The mouth of the river is calling to us to run on with the tide."

"Good-bye!" cried Ethel and Robert. "That was a fine story you told us. Maybe some day we will go up and see the happy mountains, too."

Lynchburg. The James River in the front of the picture. This city is one of the largest tobacco markets in our state, and it ranks fifth among the shoe manufacturing centers in the United States.

The Capitol Building and the Capital City.

CHAPTER XIII.

GOVERNMENT AND POPULATION

Thomas Jefferson, who was the third president of the United States, lived at Monticello, in Piedmont Virginia. At one time he was governor of Virginia.

Since Thomas Jefferson died, the railroad, the telegraph, and hundreds of other things have been invented. There are now so many people in Virginia that roads have to be built, birds and fish have to be protected, crippled children have to be taken care of, and many other things have to be done. Just as you have to obey your father, mother, and teacher, so every one in Virginia must obey the government. The government makes laws that railroads must be safe, that we must not kill birds, that we must not be cruel to animals, that we must take care of crippled children and old soldiers, that children can not work in factories until they are sixteen years old, and that we must have pure milk and food. These are some of the laws or rules that are made in Richmond, the capital of the state.

The statue of Thomas Jefferson at the University of Virginia.

The government of Virginia is for all of us. Laws are rules for all alike. We must obey them because it is best for everybody. When we travel over our state,

we can see a court house in every county. In all, there are one hundred county court houses. This is where the people are tried who do not keep the laws.

By making laws, the state helps us in many ways. It tries to protect us by laws from disease. Farmers must not sell cows for beef which are diseased. Dairymen must keep their cows and stables clean. All food sold to cities must be clean. You and your neighbor must be vaccinated against smallpox. Those who have contagious diseases are not allowed to go among other people and spread them. Schools and other public buildings must be kept clean.

There are places where the state takes care of the insane, epileptics, the deaf, dumb, and blind. It also takes care of people who are helpless with tuberculosis. Crippled children are given free treatment by our state.

Schools and Colleges

George Washington and Thomas Jefferson did not live to see children of Virginia going to public schools. But they told the people of Virginia that they should have public schools. Thomas Jefferson started the University of Virginia. He said that some day public school pupils would be going to this university. Thomas Jefferson wanted the whole world to know that he was the father of the University of Virginia. He begged the state to build this university so that everybody in Virginia would have a chance to learn about science, books, and government. He knew that we needed wise men to make laws in Richmond, the capital. He hoped the University of Virginia would be a great school where Virginians would come to learn and then go away and help the state by being good citizens. This is exactly what has happened. High school pupils now go to the University of Virginia by the thousands.

The University of Virginia is not the only college which the state owns and to which public school pupils may go at little cost. At Blacksburg is the V. P. I., where men can learn to be farmers. At Lexington is the

The University of Virginia

V. M. I., where men can learn to be soldiers and engineers. At Williamsburg there is the College of William and Mary, which is next to the oldest college in America. There are four schools where people learn to teach. These are called Normal Schools. One is at Fredericksburg, one at Radford, one at Farmville, and and one at Harrisonburg. Like the public schools, these schools are free to Virginians.

In the public schools of the state there are more than 500,000 children and 15,000 teachers.

Eight members of the State Board of Education have charge of the many pupils in the public schools. One of the laws which the people of Virginia now have to obey is to send all children to school every year from the time they are seven to the time they are fourteen years old. This is a new law. What has happened to make the people want a law like this? There are almost two hundred thousand people in Virginia who can not read or write. Many of these are colored people. Some lived so far apart and the roads were so bad that they have never had a chance to go to school. Soon there will be no people in Virginia who can neither read nor write.

Population

In all the state there are 2,300,000 people. More people live in Tidewater and in Middle Virginia than in any other section. In Tidewater and Middle Virginia the houses and farms are close together. There are large cities where people live in crowded streets. In Piedmont and in the Valley of Virginia there are about fifty people to the square mile. In the Appalachian mountains there are about twenty people to the square mile.

A lime plant which is owned by the state.

There are few colored people in the mountains. One third of all the people of our state are colored people. Many of our people had great-grandfathers and great-grandmothers who were English, Irish, Scotch, and Germans. In Middle Virginia, near Petersburg, there are about 3,000 Bohemian and Slovak farmers. These people came to farm on some of the land which Virginians had long ago deserted. There are millions of acres of this land, especially in Middle Virginia which foreigners may some day want to buy.

Public Works

The state builds the main roads. It not only builds these roads, but it also keeps them up. The state has built a capitol building in Richmond. This is where the General Assembly meets and makes laws. The state has also built a home for the governor and a skyscraper office building in Richmond. In this building and in the capitol some people who work for the state have offices. The governor's office is in the capitol building. Virginia has a home for old Confederate soldiers. She also has two lime plants where limestone rocks are ground into lime and sold to farmers at cost.

CHAPTER XIV.

CONCLUSION

Recreation

Because the climate is so mild and pleasant in Virginia, boys and girls have a lot of fun. For nine months in the year they can play out in the open without being bothered with the cold. When children in the North are having ice and snow, those in Virginia may be in the sunshine playing games, riding, or roller-skating. Sometimes, during the winter months, there is snow and ice in Virginia; then children enjoy sleighing and sometimes ice skating.

In our state are thousands of acres of wooded land and forests as well as cleared fields where people go to hunt rabbits, raccoons, opossums, deer, and birds. In Tidewater Virginia, shooting ducks, which come by the thousands to the bays and inlets, is great sport for hunters.

But when people go hunting they must go during the hunting season. Virginia makes laws to protect game. and this is one of the laws. If people were allowed to hunt whenever they wanted to, there would soon be no game for anybody to shoot. The Department of Game and Inland Fisheries has charge of making people keep laws about hunting and fishing.

Many people also enjoy fishing. In Tidewater Virginia there is more and better fishing than anywhere else in the state. In the rivers, lakes, and streams of other sections of our state there are bass, perch, trout, and other fish to delight fishermen.

Thousands of people go to summer resorts at the seashore. Besides fishing and bathing, there is boating. Merry parties can be seen in sail boats, row boats, launches, and steamers. Not only do the people who live in Tidewater enjoy the seashore, but also people who live in other sections of our state go there. Some spend their vacations while

others go on an excursion just for a few days.

Our people also go to the many mountain summer resorts to enjoy horseback riding, "hiking," tramps through the woods, and fishing. Where there are lakes and rivers they also go bathing and boating.

Because our cities are neither many nor large, the people who live in them can get out in the country without much trouble. In large cities like Chicago and New York there are some children who have never seen a farm; and the only cows they have ever seen are in picture books. We are not yet crowded and jammed in cities, where we have to burn gas or electric lights on bright days in order to see. We can be out in the open having a good time.

We can travel from one place to another without much trouble and in a short time, because of our railroads, car lines, and automobiles. So these help us to have a good time. In visiting different places, our young folks can play and romp, while our older folks can enjoy golf or tennis or hunting foxes, deer, wild turkeys, and ducks.

While we enjoy all of these things, we are kept healthy by doing them. We should be thankful that we have the seashore, mountains, rivers, valleys, rich soil, and fine climate, for these make it possible for us to have all the fun we do have.

Churches

In our state we have the very best chance to hear the good and true. Preachers and teachers come to our churches and halls to tell us about the good and true. Churches of all kinds are in our state. And so all of us have the chance to listen.

In old Virginia, the early people — our great-grandfathers and great-grandmothers — were glad that they could worship God as they wanted. But they could not do this in England. The King of England made them worship in his church. Thomas Jefferson was proud that he could say that the people of Virginia could worship God as they wished. So it was that Virginians, for more than two hundred

years, have learned to be religious and to go to church. Now one

St. John's church, where Patrick Henry made a famous speech for our liberty.

half of the people go to Baptist churches, one-fourth to Methodist churches, and one-fourth to Presbyterian, Roman Catholic, Episcopal, and other kinds of churches. Churches are found everywhere in the state where people live. The state of Virginia does not make laws about religion.

The Confederate Museum, once the White House of the Confederacy.

Art

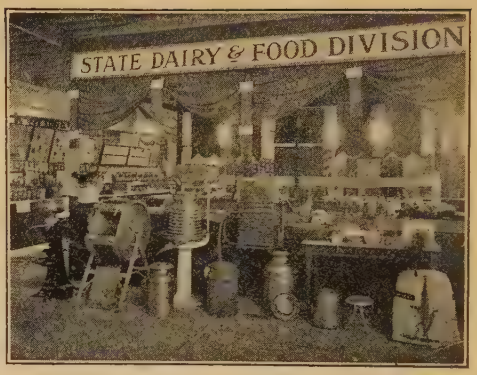
The men who go around to sell machinery, toys, automobiles, and other things in Virginia will tell you that it is a "good" state. By this they mean that the people of Virginia have money to buy what they have to sell.

The people of Virginia buy other things than machinery, toys, and automobiles. They erect statues of their heroes. Flowers and shrubs are planted in the parks. There are art galleries where beautiful pictures are hung. On the inside and outside of public buildings there are handsome pillars and casts and beautiful windows and stairways. Virginia wants her people to see and love the beautiful.

Music

Our people can hear fine music. In music halls great choruses of people sing and instruments are played. There are churches with their choirs and organs, theatres and motion picture houses with their good orchestras, parlors with their violins and pianos played by boys and girls who have been taught by good musicians.

The home of Thomas Nelson Page, who wrote books about Virginia and the South.



What science does for us. Inventions which help us get pure milk and food.

Literature

In the cities there are public libraries. From these libraries city people get all the good books they want to read. The State Library, in Richmond, sends books into every county in the state. Many noted writers have lived in Virginia. Many are now living here.

Science

The farmer has to know how to take care of the ground. We have seen that if tobacco is planted every year on the same land, the ground gets so poor that it is not fit to grow anything on. But it can be made to grow something. Good farmers know how to put the ground in good condition, and how to keep it in good condition.

The government helps the farmers. They can send some of the soil to the Department of Agriculture and it will tell them what the soil will grow best and what it needs to help make things grow. Our state also helps the farmers to get good seeds to plant and in many other ways. The state has a college where boys who want to be farmers may go. It is called the Virginia Polytechnic Institute, or the V. P. I., for short. After a boy who wishes to be a farmer gets through the high school he may go to this college and learn to be a farmer.

Doctors are always trying to find better ways to protect health and to fight disease. Engineers are building streets and roads, setting our parks, laying pipes, and doing many other useful things. Scientists are teaching and showing people the best and safest ways to run their dairies and to have pure food.

Doctors, chemists, engineers, and scientists are all busy helping to make Virginia an even happier place in which to live.

Our state observes as holidays the birthdays of two great Virginians—Robert E. Lee, on January 19, and George Washington, on February 22. Both these men were born in Westmoreland County, in Tidewater.

Virginia is called the "Mother of Presidents," because it is the birthplace of Washington, Jefferson, Madison, Monroe, William Henry Harrison, Tyler, Taylor, and Woodrow Wilson. Virginia is also called the "Mother of States" because the Old Northwest Territory, West Virginia, and Kentucky were once within her boundaries. Besides this, most of the other land now in the United States was gained by great Virginians like Jefferson and Monroe while they were presidents of our country.

Arlington,
the home of Robert E. Lee.

Mount Vernon,
the home of George Washington.

Well may it be said about our state:

The roses nowhere bloom so white
As in Virginia;
The sun nowhere shines quite so bright
As in Virginia;
The birds sing nowhere quite so sweet,
And nowhere hearts so lightly beat,
For heaven and earth both seem to meet
Down in Virginia.

The days are never quite so long
As in Virginia;
Nor quite so filled with happy song
As in Virginia;
And when my time has come to die,
Just take me back and let me lie
Close where the Blue Ridge mounts on high—
Down in Virginia.

There is nowhere a land so fair
As in Virginia;
So full of song, so free of care
As in Virginia;
And I believe that happy land
The Lord prepared for mortal man
Is built exactly on the plan
Of old Virginia.

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